		DEPARTMENT	TATE OF UTAH OF NATURAL RES OF OIL, GAS AND				FOR	
APPLI	CATION FOR	PERMIT TO DRILL	-			1. WELL NAME and	NUMBER NBU 921-25B3AS	
2. TYPE OF WORK DRILL NEW WELL	REENTER P	&A WELL DEEPE	EN WELL			3. FIELD OR WILD	CAT NATURAL BUTTES	
4. TYPE OF WELL Gas We	ell Coall	bed Methane Well: NO				5. UNIT or COMMU	NITIZATION AGRE	EMENT NAME
6. NAME OF OPERATOR KERF	R-MCGEE OIL &	GAS ONSHORE, L.P.				7. OPERATOR PHO	NE 720 929-6007	
8. ADDRESS OF OPERATOR P.O	. Box 173779, I	Denver, CO, 80217				9. OPERATOR E-MA Kathy.Schne	AIL ebeckDulnoan@ana	darko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UO 1189 ST		11. MINERAL OWNE FEDERAL IND	ERSHIP DIAN STATE (<u> </u>	FEE _	12. SURFACE OWN FEDERAL IN	ERSHIP DIAN STATE	FEE _
13. NAME OF SURFACE OWNER (if box 12	= 'fee')					14. SURFACE OWN	ER PHONE (if box	12 = 'fee')
15. ADDRESS OF SURFACE OWNER (if box	12 = 'fee')					16. SURFACE OWN	ER E-MAIL (if box	12 = 'fee')
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')		18. INTEND TO COM MULTIPLE FORMATI YES (Submit C			ROM NO	19. SLANT VERTICAL DIF	RECTIONAL 📵 H	ORIZONTAL 🗍
20. LOCATION OF WELL	FC	OOTAGES	QTR-QTR		SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	645 FI	NL 1955 FWL	NENW		25	9.0 S	21.0 E	S
Top of Uppermost Producing Zone	720 FI	NL 1985 FEL	NWNE		25	9.0 S	21.0 E	S
At Total Depth	720 FI	NL 1985 FEL	NWNE		25	9.0 S	21.0 E	S
21. COUNTY UINTAH		22. DISTANCE TO N	EAREST LEASE LIN	IE (Fe	et)	23. NUMBER OF AC	RES IN DRILLING	UNIT
		25. DISTANCE TO N (Applied For Drilling		SAME	POOL	26. PROPOSED DEF	PTH : 9877 TVD: 966	L
27. ELEVATION - GROUND LEVEL 4934		28. BOND NUMBER	22013542			29. SOURCE OF DR WATER RIGHTS AP		IF APPLICABLE
		A	TTACHMENTS					
VERIFY THE FOLLOWING	ARE ATTACH	HED IN ACCORDAN	CE WITH THE U	TAH	OIL AND (GAS CONSERVATI	ON GENERAL R	JLES
WELL PLAT OR MAP PREPARED BY	LICENSED SUI	RVEYOR OR ENGINEE	R CON	1PLET	E DRILLING	G PLAN		
AFFIDAVIT OF STATUS OF SURFACE	OWNER AGR	EEMENT (IF FEE SURF	ACE) FOR	м 5. І	F OPERATO	R IS OTHER THAN T	HE LEASE OWNER	
DIRECTIONAL SURVEY PLAN (IF DI	RECTIONALLY	OR HORIZONTALLY	ТОР	OGRA	PHICAL MA	P		
NAME Danielle Piernot	٦	FITLE Regulatory Analys	st		PHONE 72	20 929-6156		
SIGNATURE	ı	DATE 08/17/2010			EMAIL gn	bregulatory@anadarko	o.com	
API NUMBER ASSIGNED 43047512650000	7	APPROVAL			Bri	ocyfll		
					Perr	nit Manager		

API Well No: 43047512650000 Received: 8/17/2010

	Propo	osed Hole, Casing, ar	nd Cement		
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)	
Prod	7.875	4.5	0	9877	
Pipe	Grade	Length	Weight		
	Grade I-80 Buttress	9877	11.6		

API Well No: 43047512650000 Received: 8/17/2010

	Proj	oosed Hole, Casing, a	and Cement							
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)						
Surf	11	8.625	0	2410						
Pipe	Grade	Length	Weight							
	Grade I-80 LT&C	2410	28.0							

NBU 921-25B3AS

Pad: NBU 921-25C Surface: 645' FNL 1,955' FWL (NE/4NW/4) BHL: 720' FNL 1,985' FEL (NW/4NE/4) Section 25 T9S R21E

> Uintah County, Utah Mineral Lease: UO 1189 ST

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	Resource
Uinta	0 – Surface	
Green River	1,498'	
Birds Nest	1,789'	Water
Mahogany	2,161'	Water
Wasatch	4,766'	Gas
Mesaverde	7,451'	Gas
MVU2	8,376'	Gas
MVL1	8,919'	Gas
TVD	9,661'	
TD	9,877'	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program.

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program.

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program.

Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 9,661' TVD, approximately equals 6,119 psi (calculated at 0.63 psi/foot).

Maximum anticipated surface pressure equals approximately 3,994 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

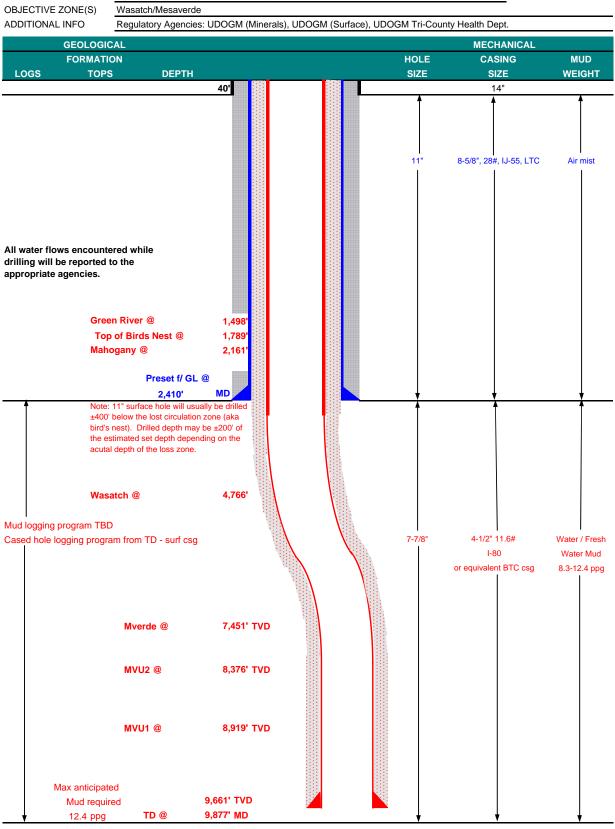
10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE August 17, 2010 **NBU 921-25B3AS** WELL NAME 9,661' TVD 9,877' MD Natural Buttes COUNTY Uintah FINISHED ELEVATION FIELD STATE Utah 4,932' 1,955' FWL SURFACE LOCATION NE/4 NW/4 645' FNL Sec 25 T 9S R 21E Latitude: 40.012522 Longitude: -109.501846 NAD 27 BTM HOLE LOCATION NW/4 NE/4 720' FNL 1,985' FEL Sec 25 T 9S R 21E Latitude: 40.012315 -109.497069 NAD 27 Longitude: Wasatch/Mesaverde





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

									DESIGN FACTORS		
	SIZE	INT	ERVAL	_	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	0	-40'								
								3,390	1,880	348,000	
SURFACE	8-5/8"	0	to	2,410	28.00	IJ-55	LTC	0.81	1.67	5.11	
								7,780	6,350	278,000	
PRODUCTION	4-1/2"	0	to	9,877	11.60	I-80	BTC	1.90	1.02	2.78	

^{*}Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above.

D.F. = 2.23

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 12.4 ppg) 0.22 psi/ft = gradient for partially evac wellbore (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3,994 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 12.4 ppg) 0.63 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 6,119 psi

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE TAIL	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
SURFACE		NOTE: If well will circulate water to sur	face, optio	n 2 will be ເ	ıtilized	
Option 2 LEAD	1,910'	65/35 Poz + 6% Gel + 10 pps gilsonite	180	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION LEAD	4,257'	Premium Lite II +0.25 pps	310	10%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	5,620'	50/50 Poz/G + 10% salt + 2% gel	1,080	10%	14.30	1.31
		+ 0.1% R-3				

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION

Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

John Merkel / Lovel Young

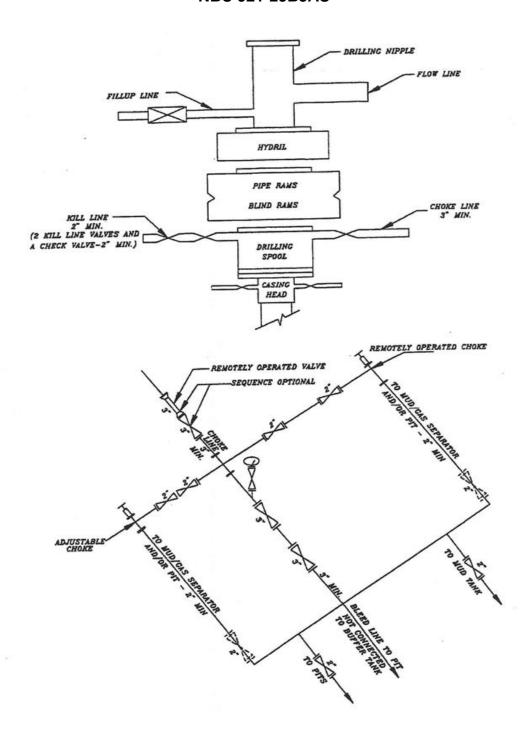
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.	
Meet rise have DVT Custom for much manifesting. If no DVT is available, visual manifesting will be utilized	

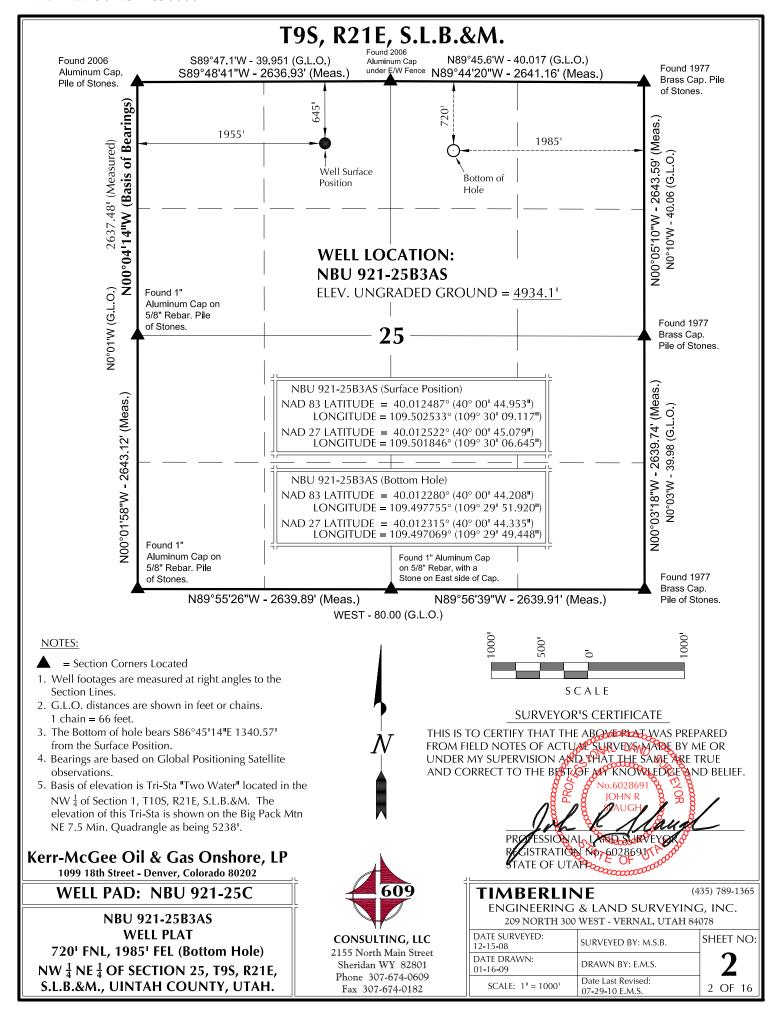
	mootingo naro i vi ojotom ioi i	inda memberingi mme i vi ne avandere, vieda membering i	mii bo atiiiLoa.	
DRILLING	ENGINEER:		DATE:	
	·	John Huycke / Emile Goodwin	_	
DRILLING	SUPERINTENDENT:		DATE:	

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A NBU 921-25B3AS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



		SU	RFACE POSITIO	DN .					В	OTTOM HOLE		
WELL NAME	NAD		NAI									
NBU	LATITUDE 40°00'45.000"	LONGITUDE	LATITUDE 40°00'45.127"	LONGITUDE								
921-25C2DS	40°00°45.000° 40.012500°	109°30'09.230" 109.502564°	40°00°45.127° 40.012535°	109°30'06.758" 109.501877°	640' FNL 1946' FWL	40.012						504' FNL 1975' FWL
NBU	40°00'44.953"	109°30'09.117"	40°00'45.079"	109°30'06.645"	645' FNL	40°00'4	14.208"	109°29'51.	.920"	40°00'44.335"	109°29'49.448"	720' FNL
921-25B3AS NBU	40.012487° 40°00'44.905"	109.502533° 109°30'09.004"	40.012522° 40°00'45.032"	109.501846° 109°30'06.531"	1955' FWL 650' FNL	40.0122						1985' FEL 841' FNL
921-25C3AS	40.012474°	109°30'09.004" 109.502501°	40.012509°	109°30'06.531" 109.501814°	1964' FWL	40.0119	874° 109.502462° 40.012909° 109.501775° 197 44.208" 109°29'51.920" 40°00'44.335" 109°29'49.448" 72 280° 109.497755° 40.012315° 109.497069° 19 43.016" 109°30'08.855" 40°00'43.142" 109°30'06.383" 84 949° 109.502460° 40.011984° 109.501773° 19 40.750" 109°29'51.911" 40°00'40.877" 109°29'49.440" 10 320° 109.497753° 40.011355° 109.497067° 19 m to Bottom Hole WELL NAME NORTH		1975' FWL			
NBU	40°00'44.858"	109°30'08.892"	40°00'44.985"	109°30'06.419"	6541 FNL			109°29'51.	.911"	40°00'40.877"	109°29'49.440"	1070' FNL
921-25B3DS NBU 97	40.012461° 40°00'44.810"	109.502470°	40.012496° 40°00'44.936"	109.501783° 109°30'06.307"	1972' FWL	40.0113	320°	109.49775	3°	40.011355°	109.497067°	1985' FEL
NBU 97	40.012447°	109°30'08.779" 109.502439°	40.012482°	109°30'06.30/" 109.501752°	659' FNL 1981' FWL							
			RELATIVE	COORDINATES	- From Surface	Position	to Botto	om Hole				
WELL NAME	NORTH	EAST WE	LL NAME NO	ORTH EAS	T WELL	NAME	NOR	TH E	AST	WELL NAM	E NORTH	EAST
NBU	136.1'	28.71 NBU		75.9¹ 1,338	NBU		-191	.31 1	1.51		-416.3	1,321.4
921-25C2DS		921	-25B3AS		921-25	CSAS				921-258303	9	
Kowa Ma		SCA \$1016/55/1806	W	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$) [,]	BASIS (OF TH S.L.B.& GLOB/ OBSER	E NW : RM. WH AL POS RVATIC	14 OF SECT HICH IS TA SITIONING DNS TO BE	TION AKEN G SAT EAR N	25, T9S, R21E, I FROM FELLITE N00°04'14"W. Az= S86°45'1 (To Bo	93.24611° 4"E - 1340.	57'
1099 1	8th Street - De	nver, Colorado	80202	<u> </u>								
WEI	L PAD - N	NBU 921-2	25C		609		11	MBEI Enginee		I NE G & LAND :		35) 789-1365 i, INC.
WFII	PAD INTE	RFERENCE	PLAT							00 WEST - VER		,
		2DS, NBU 92		CONS	ULTING, LL	С		SURVEYED):	SURVEYED B	V· M S R	SHEET NO:
		& NBU 921-2	· 11		orth Main Stre		12-15			30KVLTED B	1. IVI.J.D.	_
		ION 25, T9S		Sherid	an WY 8280	1	DATE 01-19	E DRAWN: 9 - 09		DRAWN BY:	E.M.S.	5
		i COUNTY,			307-674-060 07-674-0182			CALE: 1" = 6	وں، د	Date Last Rev		5 OF 16
S.I.B.A										07-29-10 E.N		

EXISTING GRADE @ CENTER OF WELL PAD = 4933.9' FINISHED GRADE ELEVATION = 4932.0' CUT SLOPES = 1.5:1 FILL SLOPES = 1.5:1 TOTAL WELL PAD AREA = 3.71 ACRES TOTAL DAMAGE AREA = 6.28 ACRES SHRINKAGE FACTOR = 1.10 SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25C

WELL PAD - LOCATION LAYOUT NBU 921-25C2DS, NBU 921-25B3AS, NBU 921-25C3AS & NBU 921-25B3DS LOCATED IN SECTION 25, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC 2155 North Main Street Sheridan, WY 82801 Phone 307-674-0609 Fax 307-674-0182

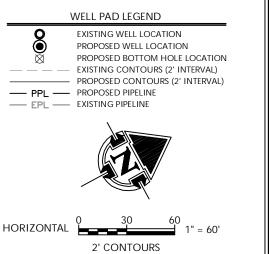
WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 15,571 C.Y. TOTAL FILL FOR WELL PAD = 11,083 C.Y. TOPSOIL @ 6" DEPTH = 2,198 C.Y. EXCESS MATERIAL = 4,488 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT +/- 11,560 CY RESERVE PIT CAPACITY (2' OF FREEBOARD) +/- 44,420 BARRELS

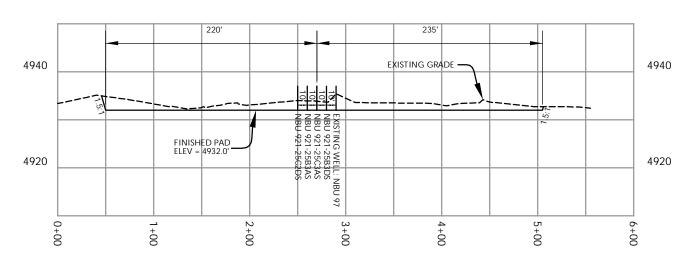
(435) 789-1365 **TIMBERLINE** ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078



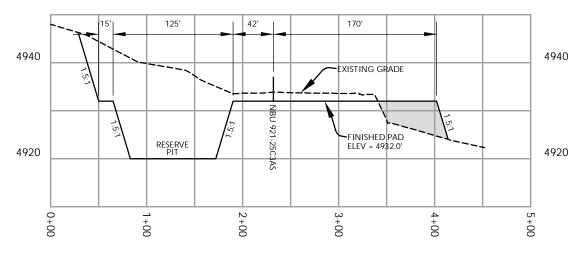
8/2/10

REVISED:

SHEET NO: 0 6 OF 16



CROSS SECTION A-A'



Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25C

WELL PAD - CROSS SECTIONS NBU 921-25C2DS, NBU 921-25B3AS, NBU 921-25C3AS & NBU 921-25B3DS LOCATED IN SECTION 25, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH

CROSS SECTION B-B'



CONSULTING, LLC 2155 North Main Street Sheridan, WY 82801 Phone 307-674-0609 Fax 307-674-0182 HORIZONTAL 1" = 100'

VERTICAL 1" = 20'

TIMBERLINE (435) 789-13
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

'APIWellNo:43047512650000'

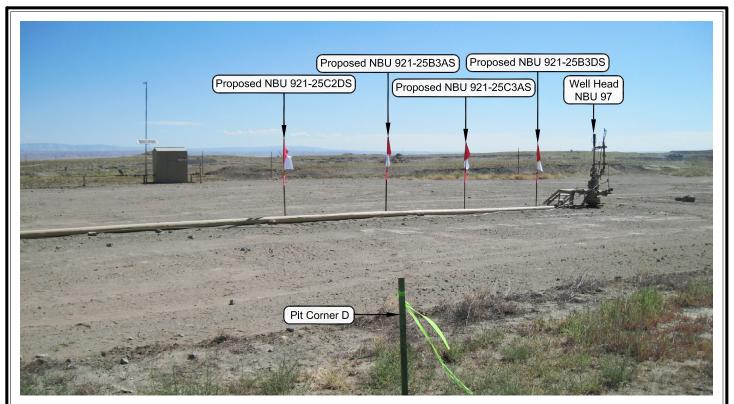


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

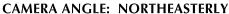




PHOTO VIEW: FROM EXISTING ROAD

CAMERA ANGLE: WESTERLY

Kerr-McGee Oil & Gas Onshore, LP

WELL PAD - NBU 921-25C

LOCATION PHOTOS
NBU 921-25C2DS, NBU 921-25B3AS,
NBU 921-25C3AS & NBU 921-25B3DS
LOCATED IN SECTION 25, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.



CONSULTING, LLC 2155 North Main Street

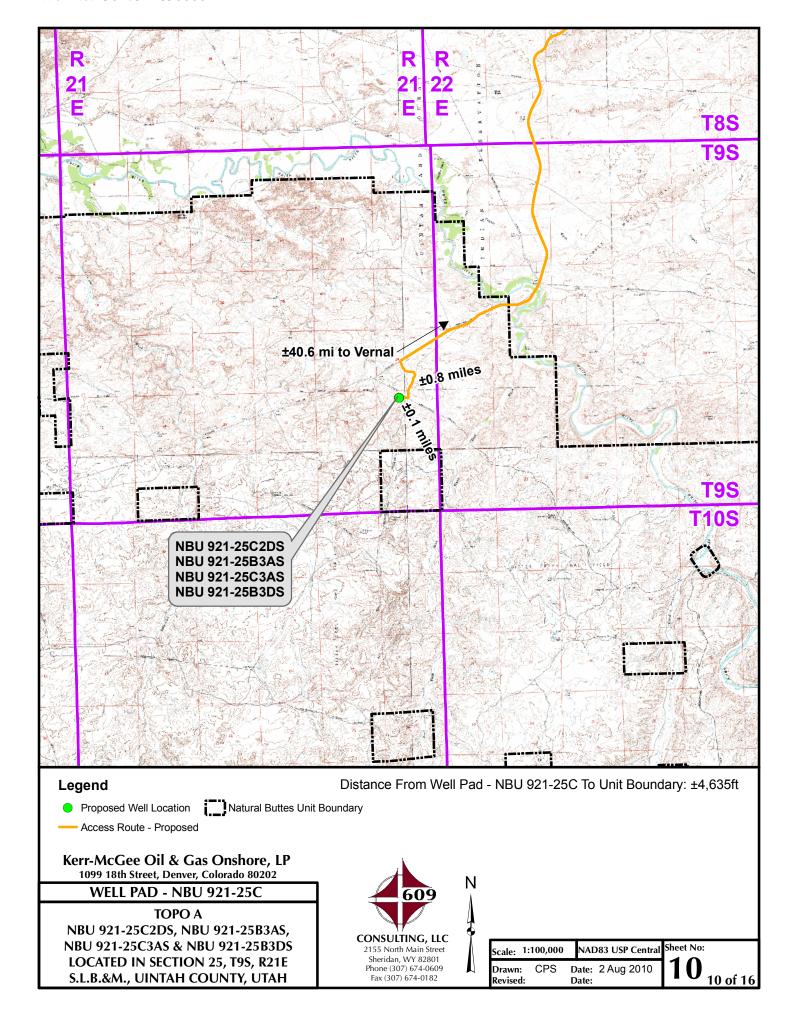
2155 North Main Stree Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

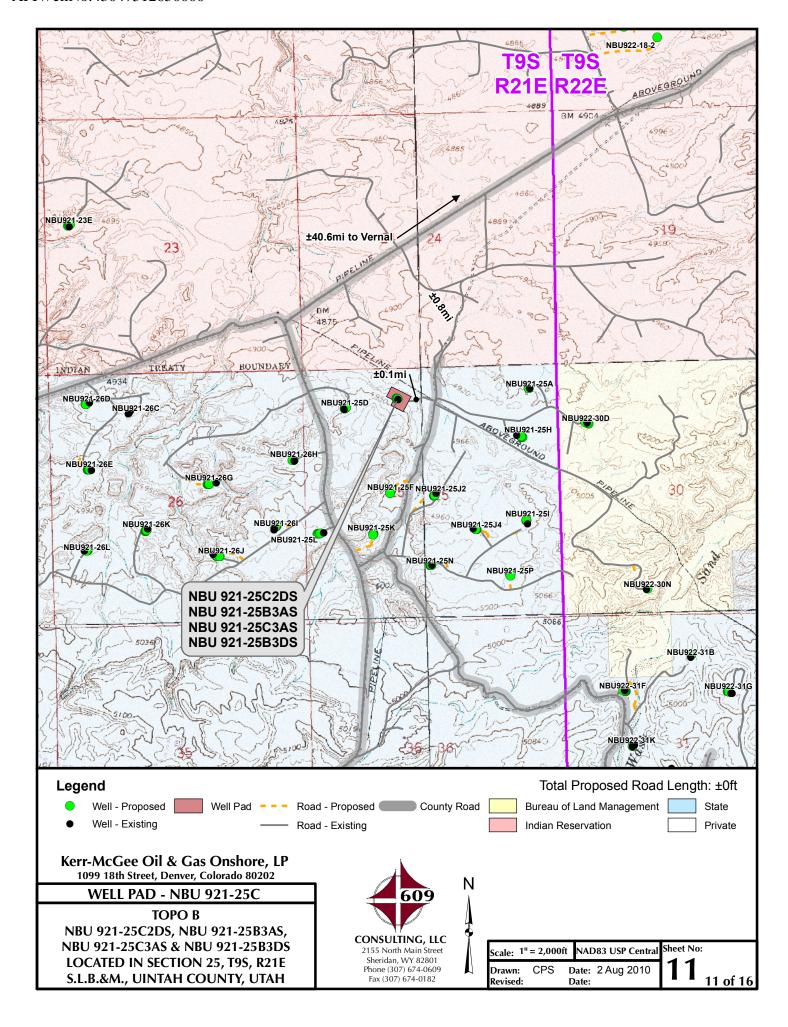
TIMBERLINE

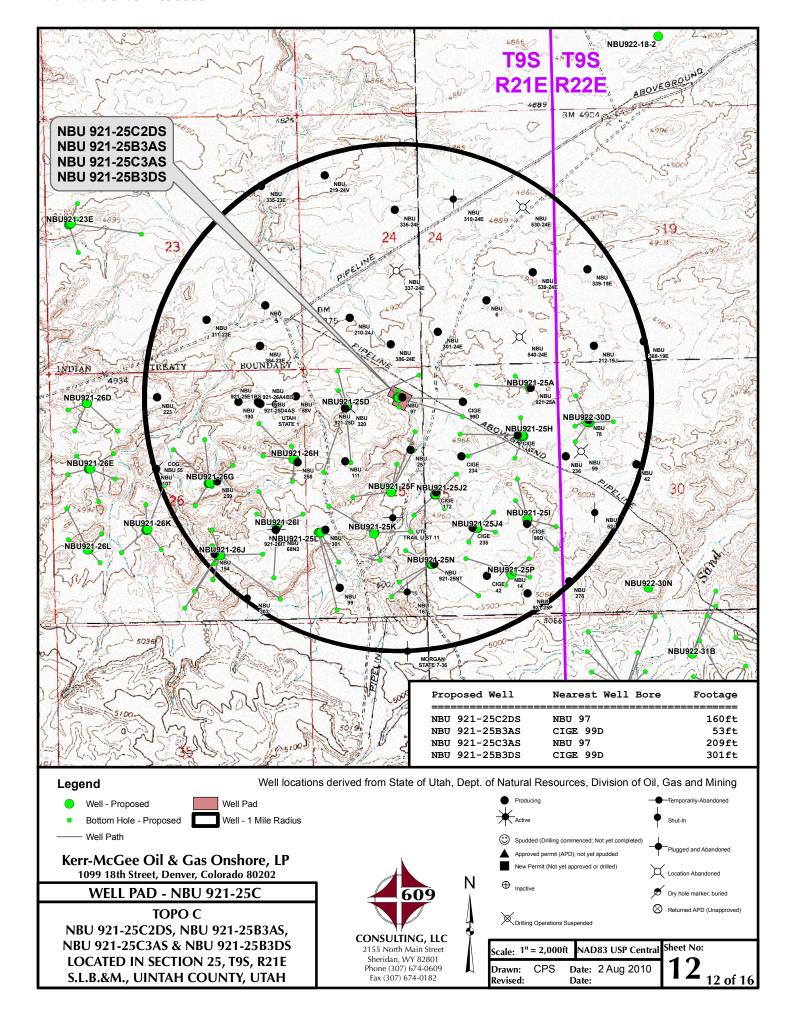
(435) 789-1365

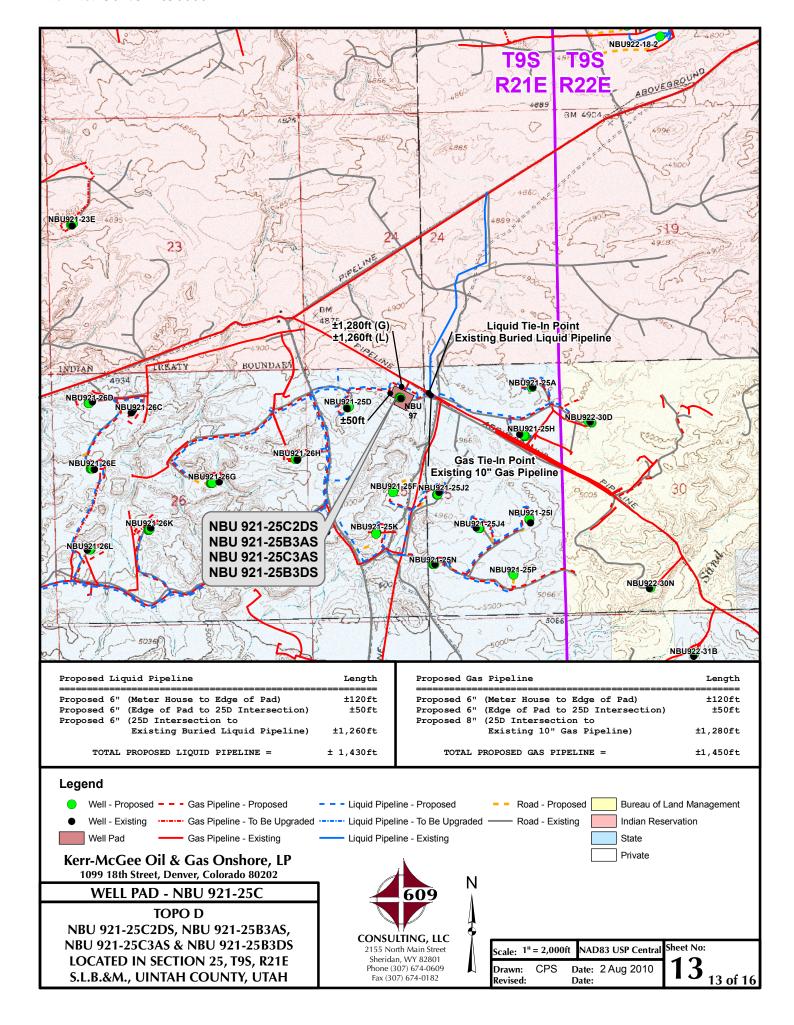
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

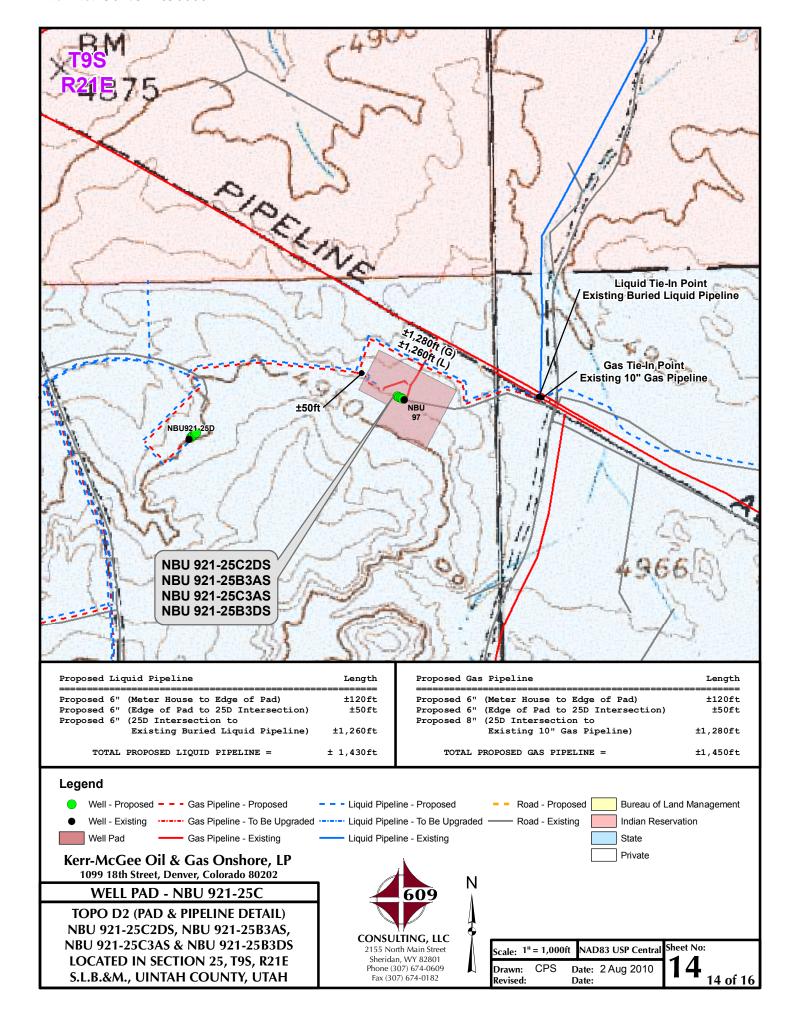
ı	209 NORTH 300	WEST - VERNAL, UTAH 64	310
	DATE PHOTOS TAKEN: 12-15-08	PHOTOS TAKEN BY: M.S.B.	SHEET NO:
	DATE DRAWN: 01-19-09	DRAWN BY: E.M.S.	9
	Date Last Revised: 07-29-10	9 OF 16	

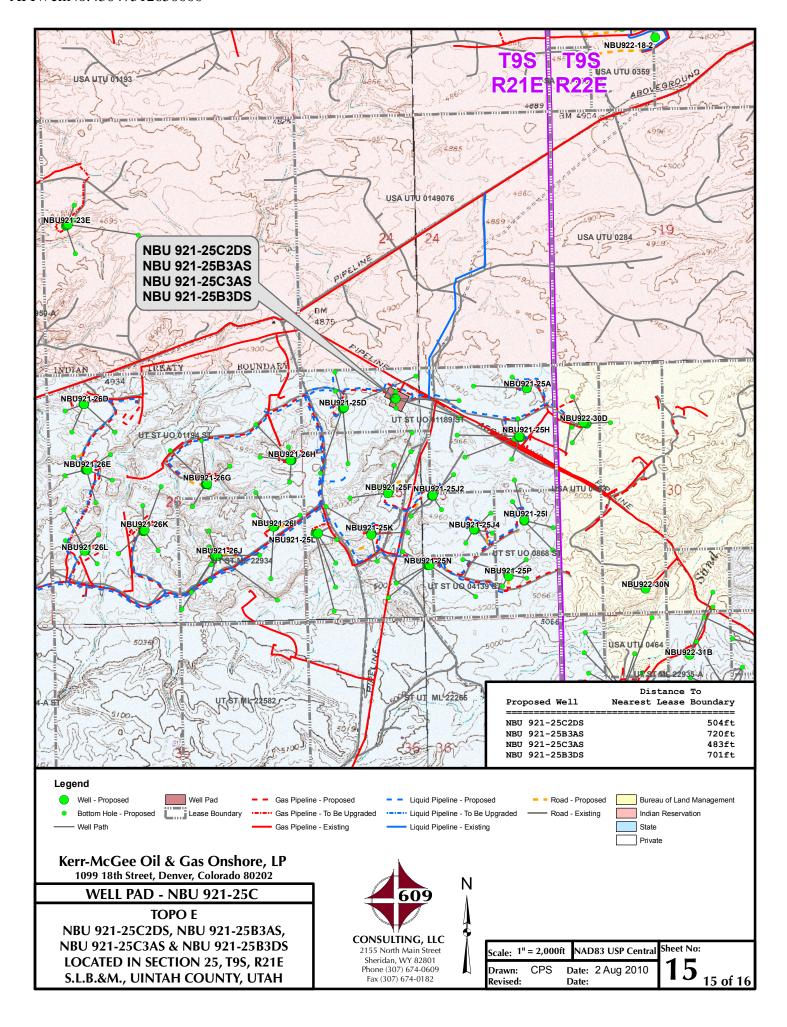












Kerr-McGee Oil & Gas Onshore, LP WELL PAD - NBU 921-25C WELLS - NBU 921-25C2DS, NBU 921-25B3AS, NBU 921-25C3AS & NBU 921-25B3DS Section 25, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East street in Vernal, Utah proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 17.1 miles to a service road to the southeast. Exit left and proceed in a southeasterly then easterly then southerly direction along service road approximately 0.8 miles to a second service road to the northwest. Exit right and proceed in a northwesterly then southwesterly direction along second service road approximately 0.1 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 41.5 miles in a southerly direction.

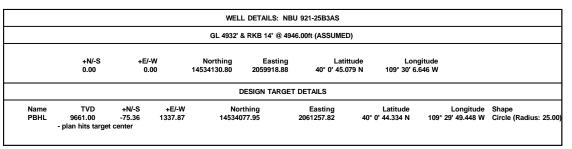


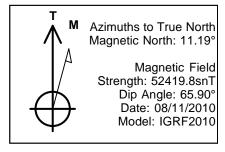
Project: Uintah County, UT UTM12 Site: NBU 921-25C Pad

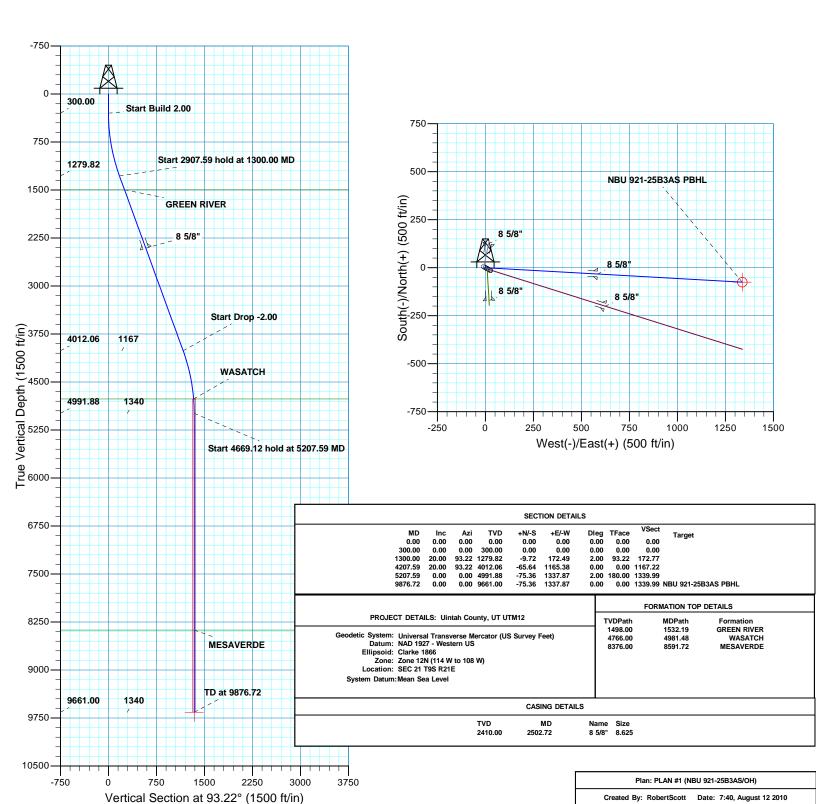
Well: NBU 921-25B3AS

Wellbore: OH Design: PLAN #1











Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 921-25C Pad NBU 921-25B3AS

ОН

Plan: PLAN #1

Standard Planning Report

12 August, 2010







EDM5000-RobertS-Local Database:

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

NBU 921-25C Pad Site: NBU 921-25B3AS Well:

Wellbore: ОН Design: PLAN #1

5,207.59

9,876.72

0.00

0.00

0.00

0.00

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 921-25B3AS

GL 4932' & RKB 14' @ 4946.00ft

(ASSUMED)

GL 4932' & RKB 14' @ 4946.00ft

(°)

93.22

0.00

0.00

180.00

0.00 NBU 921-25B3AS PB

(ASSUMED)

Minimum Curvature

Uintah County, UT UTM12 **Project**

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 - Western US Geo Datum: Zone 12N (114 W to 108 W) Map Zone:

System Datum: Mean Sea Level

(ft)

0.00

2.00

0.00

-2.00

0.00

NBU 921-25C Pad, SEC 21 T9S R21E Site

14,534,135.39 usft Site Position: Northing: Latitude: 40° 0' 45.126 N From: Lat/Long Easting: 2,059,910.11 usft Longitude: 109° 30' 6.757 W 0.00 ft Slot Radius: 13.200 in **Grid Convergence:** 0.96° **Position Uncertainty:**

Well NBU 921-25B3AS, 650' FNL 1964' FWL

Well Position -4.73 ft 14,534,130.80 usft 40° 0' 45 079 N +N/-S Northing: Latitude:

+E/-W 8.68 ft Easting: 2,059,918.87 usft Longitude: 109° 30' 6.646 W

Position Uncertainty 0.00 ft Wellhead Elevation: **Ground Level:** 4.932.00 ft

ОН Wellbore Field Strength Magnetics **Model Name** Sample Date Declination Dip Angle (°) (°) (nT) IGRF2010 08/11/2010 11.19 65.90 52,420

PLAN #1 Design Audit Notes: PLAN 0.00 Version: Phase: Tie On Depth: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft)

0.00

(ft)

0.00

4,991.88

9,661.00

-75.36

-75.36

Plan Sections Measured Vertical Dogleg Build Turn Depth Inclination Azimuth Depth +N/-S +E/-W Rate Rate Rate TFO (°/100ft) (°/100ft) (°/100ft) (ft) (°) (°) (ft) (ft) (ft) **Target** (°) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 300.00 0.00 0.00 300.00 0.00 0.00 0.00 0.00 0.00 0.00 1,300.00 20.00 93.22 1,279.82 -9.72 172.49 2.00 2.00 0.00 93.22 4,207.59 20.00 93.22 4,012.06 -65.64 1,165.38 0.00 0.00 0.00 0.00

1,337.87

1,337.87





Database: EDM5000-RobertS-Local

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

 Site:
 NBU 921-25C Pad

 Well:
 NBU 921-25B3AS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 921-25B3AS

GL 4932' & RKB 14' @ 4946.00ft

(ASSUMED)

GL 4932' & RKB 14' @ 4946.00ft (ASSUMED)

True

Massured	anned Survey									
100.00 0.00 0.00 0.00 100.00 0.00 0.00	Depth			Depth			Section	Rate	Rate	Rate
## 400.00	100.00 200.00 300.00	0.00 0.00 0.00	0.00 0.00	100.00 200.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
\$\begin{array}{cccccccccccccccccccccccccccccccccccc			93.22	399.98	-0.10	1.74	1.75	2.00	2.00	0.00
1,000.00	600.00 700.00 800.00	6.00 8.00 10.00	93.22 93.22 93.22	599.45 698.70 797.47	-0.88 -1.57 -2.45	15.67 27.84 43.45	15.69 27.88 43.52	2.00 2.00 2.00	2.00 2.00 2.00	0.00 0.00 0.00
1,400.00	1,100.00 1,200.00 1,300.00	16.00 18.00 20.00	93.22 93.22 93.22	1,089.64 1,185.27	-4.79 -6.24 -7.89	110.80 139.99	110.98 140.21	2.00 2.00	2.00 2.00	0.00 0.00
1,500.00				1 373 78	-11 64	206 64	206 97	0.00	0.00	0.00
1,600.00 20.00 93.22 1,561.72 -15.49 274.94 275.37 0.00 0.00 0.00 0.00 1,700.00 20.00 93.22 1,655.69 -17.41 309.09 309.58 0.00 0.00 0.00 0.00 1,800.00 20.00 93.22 1,843.63 -21.26 377.38 377.98 0.00 0.00 0.00 0.00 2,000 0.00 0.20 0.32 1,843.63 -21.26 377.38 377.98 0.00 0.00 0.00 0.00 2,000.00 20.00 93.22 2,031.57 -25.10 445.68 446.38 0.00 0.00 0.00 0.00 2,200.00 20.00 93.22 2,215.54 -27.03 479.83 480.59 0.00 0.00 0.00 0.00 2,200.00 20.00 93.22 2,219.51 -28.95 513.97 514.79 0.00 0.00 0.00 2,500.00 20.00 93.22 2,407.45 -32.80 582.27 583.19 0.00 0.00 0.00 0.00 2,500.00 20.00 93.22 2,410.00 -32.85 583.20 584.12 0.00 0.00 0.00 0.00 0.00 2,700.00 20.00 93.22 2,410.00 -32.85 583.20 584.12 0.00	1,500.00	20.00	93.22	1,467.75	-13.56	240.79	241.17	0.00	0.00	0.00
1,700.00			00.22	1,100.00	11.10	201.70	202.10	0.00	0.00	0.00
2,000.00 20.00 93.22 1,937.60 -23.18 411.53 442.18 0.00 0.00 0.00 2,100.00 20.00 93.22 2,031.57 -25.10 445.68 446.38 0.00 0.00 0.00 2,200.00 20.00 93.22 2,125.54 -27.03 479.83 480.59 0.00 0.00 0.00 2,300.00 20.00 93.22 2,219.51 -28.95 513.97 514.79 0.00 0.00 0.00 2,400.00 20.00 93.22 2,417.45 -32.80 582.27 583.19 0.00 0.00 0.00 2,502.72 20.00 93.22 2,410.00 -32.85 583.20 584.12 0.00 0.00 0.00 2,600.00 20.00 93.22 2,591.42 -34.72 616.42 617.39 0.00 0.00 0.00 2,800.00 20.00 93.22 2,689.35 -38.57 684.71 685.80 0.00 0.00 0.00	1,700.00	20.00	93.22	1,655.69	-17.41	309.09	309.58	0.00	0.00	0.00
2,500.00	2,000.00 2,100.00 2,200.00	20.00 20.00 20.00	93.22 93.22 93.22	1,937.60 2,031.57 2,125.54	-23.18 -25.10 -27.03	411.53 445.68 479.83	412.18 446.38 480.59	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
2,600.00 20.00 93.22 2,501.42 -34.72 616.42 617.39 0.00 0.00 0.00 2,700.00 20.00 93.22 2,595.39 -36.64 650.56 651.60 0.00 0.00 0.00 2,800.00 20.00 93.22 2,689.35 -38.57 684.71 685.80 0.00 0.00 0.00 2,900.00 20.00 93.22 2,783.32 -40.49 718.86 720.00 0.00 0.00 0.00 3,000.00 20.00 93.22 2,877.29 -42.41 753.01 754.20 0.00 0.00 0.00 3,100.00 20.00 93.22 2,971.26 -44.34 787.16 788.40 0.00 0.00 0.00 3,200.00 20.00 93.22 3,159.20 -48.18 855.45 856.81 0.00 0.00 0.00 3,400.00 20.00 93.22 3,253.17 -50.11 889.60 891.01 0.00 0.00 0.00	2,500.00 2,502.72	20.00	93.22	2,407.45	-32.80	582.27	583.19	0.00	0.00	0.00
2,900.00 20.00 93.22 2,783.32 -40.49 718.86 720.00 0.00 0.00 0.00 3,000.00 20.00 93.22 2,877.29 -42.41 753.01 754.20 0.00 0.00 0.00 3,100.00 20.00 93.22 2,971.26 -44.34 787.16 788.40 0.00 0.00 0.00 3,200.00 20.00 93.22 3,065.23 -46.26 821.30 822.61 0.00 0.00 0.00 3,300.00 20.00 93.22 3,159.20 -48.18 855.45 856.81 0.00 0.00 0.00 3,400.00 20.00 93.22 3,253.17 -50.11 889.60 891.01 0.00 0.00 0.00 3,600.00 20.00 93.22 3,347.14 -52.03 923.75 925.21 0.00 0.00 0.00 3,600.00 20.00 93.22 3,535.08 -55.88 992.04 993.62 0.00 0.00 0.00 3,800.00 20.00 93.22 3,629.05 -57.80 1,026.19 <td< td=""><td>2,600.00</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	2,600.00									
3,400.00 20.00 93.22 3,253.17 -50.11 889.60 891.01 0.00 0.00 0.00 3,500.00 20.00 93.22 3,347.14 -52.03 923.75 925.21 0.00 0.00 0.00 3,600.00 20.00 93.22 3,441.11 -53.95 957.90 959.41 0.00 0.00 0.00 3,700.00 20.00 93.22 3,535.08 -55.88 992.04 993.62 0.00 0.00 0.00 3,800.00 20.00 93.22 3,629.05 -57.80 1,026.19 1,027.82 0.00 0.00 0.00 3,900.00 20.00 93.22 3,723.02 -59.72 1,060.34 1,062.02 0.00 0.00 0.00 4,000.00 20.00 93.22 3,816.99 -61.65 1,094.49 1,096.22 0.00 0.00 0.00 4,100.00 20.00 93.22 3,910.95 -63.57 1,128.64 1,130.42 0.00 0.00 0.00 4,200.00 20.00 93.22 4,004.92 -65.49 1,162.7	2,900.00 3,000.00 3,100.00	20.00 20.00 20.00	93.22 93.22 93.22	2,783.32 2,877.29 2,971.26	-40.49 -42.41 -44.34	718.86 753.01 787.16	720.00 754.20 788.40	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
3,900.00 20.00 93.22 3,723.02 -59.72 1,060.34 1,062.02 0.00 0.00 0.00 4,000.00 20.00 93.22 3,816.99 -61.65 1,094.49 1,096.22 0.00 0.00 0.00 4,100.00 20.00 93.22 3,910.95 -63.57 1,128.64 1,130.42 0.00 0.00 0.00 4,200.00 20.00 93.22 4,004.92 -65.49 1,162.78 1,164.63 0.00 0.00 0.00 4,207.59 20.00 93.22 4,012.06 -65.64 1,165.38 1,167.22 0.00 0.00 0.00	3,400.00 3,500.00 3,600.00	20.00 20.00 20.00	93.22 93.22 93.22	3,253.17 3,347.14 3,441.11	-50.11 -52.03 -53.95	889.60 923.75 957.90	891.01 925.21 959.41	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
	3,900.00 4,000.00 4,100.00	20.00 20.00 20.00	93.22 93.22 93.22	3,723.02 3,816.99 3,910.95	-59.72 -61.65 -63.57	1,060.34 1,094.49 1,128.64	1,062.02 1,096.22 1,130.42	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
Start Drop -2.00	·		93.22	4,012.06	-65.64	1,165.38	1,167.22	0.00	0.00	0.00





EDM5000-RobertS-Local Database:

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

NBU 921-25C Pad Site: Well: NBU 921-25B3AS

Wellbore: ОН Design: PLAN #1 Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 921-25B3AS

GL 4932' & RKB 14' @ 4946.00ft

(ASSUMED)

GL 4932' & RKB 14' @ 4946.00ft (ASSUMED)

True

ned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,300.00		93.22	4,099.39	-67.34	1,195.53	1,197.42	2.00	-2.00	0.00
4,400.00	16.15	93.22	4,194.94	-69.00	1,224.97	1,226.91	2.00	-2.00	0.00
4,500.00	14.15	93.22	4,291.45	-70.47	1,251.07	1,253.05	2.00	-2.00	0.00
4,600.00	12.15	93.22	4,388.83	-71.75	1,273.78	1,275.80	2.00	-2.00	0.00
4,700.00	10.15	93.22	4,486.93	-72.83	1,293.09	1,295.14	2.00	-2.00	0.00
4,800.00		93.22	4,585.66	-72.63 -73.73	1,293.09	1,311.04	2.00	-2.00	0.00
4,900.00		93.22	4,684.87	-73.73 -74.43	1,306.97		2.00	-2.00	0.00
4,981.48		93.22	4,766.00	-74.86	1,321.40	1,323.49 1,331.07	2.00	-2.00	0.00
		93.22	4,700.00	-74.00	1,320.97	1,331.07	2.00	-2.00	0.00
WASATCH		00.00	4 70 4 40	74.00	4 000 00	4 000 47	0.00	0.00	0.00
5,000.00	4.15	93.22	4,784.46	-74.93	1,330.36	1,332.47	2.00	-2.00	0.00
5,100.00	2.15	93.22	4,884.31	-75.24	1,335.85	1,337.97	2.00	-2.00	0.00
5,200.00		93.22	4,984.28	-75.36	1,337.86	1,339.98	2.00	-2.00	0.00
5,207.59		0.00	4,991.88	-75.36	1,337.87	1,339.99	2.00	-2.00	0.00
	.12 hold at 5207.59								
5,300.00		0.00	5,084.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
5,400.00		0.00	5,184.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
5,500.00		0.00	5,284.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
5,600.00		0.00	5,384.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
5,700.00		0.00	5,484.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
5,800.00		0.00	5,584.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
5,900.00	0.00	0.00	5,684.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
6,000.00	0.00	0.00	5,784.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
6,100.00		0.00	5,884.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
6,200.00		0.00	5,984.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
6,300.00		0.00	6,084.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
6,400.00		0.00	6,184.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
6,500.00		0.00	6,284.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
6,600.00		0.00	6,384.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
6,700.00		0.00	6,484.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
6,800.00		0.00	6,584.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
6,900.00	0.00	0.00	6,684.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
7,000.00	0.00	0.00	6,784.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
7,100.00		0.00	6,884.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
7,200.00		0.00	6,984.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
7,300.00		0.00	7,084.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
7,400.00		0.00	7,184.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
7,500.00		0.00	7,284.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
7,600.00		0.00	7,384.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
7,700.00		0.00	7,484.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
7,800.00		0.00	7,584.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
7,900.00	0.00	0.00	7,684.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
8,000.00	0.00	0.00	7,784.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
8,100.00		0.00	7,884.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
8,200.00		0.00	7,984.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
8,300.00		0.00	8,084.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
8,400.00		0.00	8,184.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
8,500.00		0.00	8,284.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
8,591.72		0.00	8,376.00	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
MESAVER	DE								
8,600.00	0.00	0.00	8,384.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
8,700.00	0.00	0.00	8,484.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
8,800.00	0.00	0.00	8,584.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00





EDM5000-RobertS-Local Database:

Kerr McGee Oil and Gas Onshore LP

Project:

Company:

Uintah County, UT UTM12

NBU 921-25C Pad Site: Well: NBU 921-25B3AS

Wellbore: ОН Design: PLAN #1 Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 921-25B3AS

GL 4932' & RKB 14' @ 4946.00ft

(ASSUMED)

GL 4932' & RKB 14' @ 4946.00ft (ASSUMED)

True

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,900.00	0.00	0.00	8,684.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
9,000.00	0.00	0.00	8,784.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
9,100.00	0.00	0.00	8,884.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
9,200.00	0.00	0.00	8,984.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
9,300.00	0.00	0.00	9,084.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
9,400.00	0.00	0.00	9,184.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
9,500.00	0.00	0.00	9,284.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
9,600.00	0.00	0.00	9,384.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
9,700.00	0.00	0.00	9,484.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
9,800.00	0.00	0.00	9,584.28	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
9,876.72	0.00	0.00	9,661.00	-75.36	1,337.87	1,339.99	0.00	0.00	0.00
TD at 9876.	72 - NBU 921-25E	33AS PBHL							

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
NBU 921-25B3AS PBHL - plan hits target cen - Circle (radius 25.00		0.00	9,661.00	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W

Casing Points						
	Measured	Vertical		Casing	Hole	
	Depth	Depth		Diameter	Diameter	
	(ft)	(ft)	Name	(in)	(in)	
	2,502.72	2,410.00 8 5/8"		8.625	11.000	

Formations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,532.19	1,498.00	GREEN RIVER				
	4,981.48	4,766.00	WASATCH				
	8,591.72	8,376.00	MESAVERDE				

Plan Annotations				
Measured	Vertical	Local Coord	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.0	0 300.00	0.00	0.00	Start Build 2.00
1,300.0	0 1,279.82	-9.72	172.49	Start 2907.59 hold at 1300.00 MD
4,207.5	9 4,012.06	-65.64	1,165.38	Start Drop -2.00
5,207.5	9 4,991.88	-75.36	1,337.87	Start 4669.12 hold at 5207.59 MD
9,876.7	2 9,661.00	-75.36	1,337.87	TD at 9876.72



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 921-25C Pad NBU 921-25B3AS

OH

Plan: PLAN #1

Standard Planning Report - Geographic

12 August, 2010





SDI Planning Report - Geographic



EDM5000-RobertS-Local Database:

Company: Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12

Project:

NBU 921-25C Pad Site: Well: NBU 921-25B3AS

Wellbore: ОН Design: PLAN #1 **Local Co-ordinate Reference:**

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 921-25B3AS

GL 4932' & RKB 14' @ 4946.00ft

(ASSUMED)

GL 4932' & RKB 14' @ 4946.00ft

(ASSUMED)

Minimum Curvature

Uintah County, UT UTM12 Project

Universal Transverse Mercator (US Survey Feet) Map System:

NAD 1927 - Western US Geo Datum: Zone 12N (114 W to 108 W) Map Zone:

System Datum: Mean Sea Level

Site NBU 921-25C Pad, SEC 21 T9S R21E

14,534,135.39 usft Site Position: Northing: Latitude: 40° 0' 45.126 N 109° 30' 6.757 W Lat/Long 2,059,910.11 usft Easting: Longitude: From: 0.96 ° 0.00 ft Slot Radius: 13.200 in **Position Uncertainty: Grid Convergence:**

NBU 921-25B3AS, 650' FNL 1964' FWL Well **Well Position** 40° 0' 45.079 N +N/-S 0.00 ft Northing: 14,534,130.80 usft Latitude: 109° 30' 6.646 W +E/-W 0.00 ft 2,059,918.87 usft Longitude: Easting: 0.00 ft 4,932.00 ft **Position Uncertainty** Wellhead Elevation: **Ground Level:**

Wellbore ОН Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) (°) 52,420 IGRF2010 11.19 65.90 08/11/2010

PLAN #1 Design **Audit Notes:** PLAN 0.00 Version: Phase: Tie On Depth: +N/-S Vertical Section: Depth From (TVD) +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 93.22

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	93.22	1,279.82	-9.72	172.49	2.00	2.00	0.00	93.22	
4,207.59	20.00	93.22	4,012.06	-65.64	1,165.38	0.00	0.00	0.00	0.00	
5,207.59	0.00	0.00	4,991.88	-75.36	1,337.87	2.00	-2.00	0.00	180.00	
9,876.72	0.00	0.00	9,661.00	-75.36	1,337.87	0.00	0.00	0.00	0.00	NBU 921-25B3AS PB



Company:

SDIPlanning Report - Geographic



Database: EDM5000-RobertS-Local

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

 Site:
 NBU 921-25C Pad

 Well:
 NBU 921-25B3AS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference: Survey Calculation Method: Well NBU 921-25B3AS

GL 4932' & RKB 14' @ 4946.00ft

(ASSUMED)

GL 4932' & RKB 14' @ 4946.00ft (ASSUMED)

True

Planned Survey	/								
Measured			Vertical			Мар	Мар		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
0.00		0.00	0.00	0.00	0.00	14,534,130.80	2,059,918.87	40° 0' 45.079 N	109° 30' 6.646 W
100.00		0.00	100.00	0.00	0.00	14,534,130.80	2,059,918.87	40° 0' 45.079 N	109° 30' 6.646 W
200.00		0.00	200.00	0.00	0.00	14,534,130.80	2,059,918.87	40° 0' 45.079 N	109° 30' 6.646 W
300.00		0.00	300.00	0.00	0.00	14,534,130.80	2,059,918.87	40° 0' 45.079 N	109° 30' 6.646 W
Start Bu									
400.00		93.22	399.98	-0.10	1.74	14,534,130.74	2,059,920.62	40° 0' 45.078 N	109° 30' 6.623 W
500.00		93.22 93.22	499.84 599.45	-0.39 -0.88	6.97	14,534,130.53	2,059,925.85	40° 0' 45.075 N	109° 30' 6.556 W
600.00 700.00		93.22	599.45 698.70	-0.88 -1.57	15.67 27.84	14,534,130.19 14,534,129.71	2,059,934.55 2,059,946.73	40° 0' 45.070 N 40° 0' 45.064 N	109° 30' 6.444 W 109° 30' 6.288 W
800.00		93.22	797.47	-1.57	43.45	14,534,129.09	2,059,940.73	40° 0' 45.055 N	109° 30' 6.087 W
900.00		93.22	895.62	-3.52	62.50	14,534,128.34	2,059,981.43	40° 0' 45.044 N	109° 30′ 5.842 W
1,000.00		93.22	993.06	-4.79	84.96	14,534,127.45	2,060,003.90	40° 0' 45.032 N	109° 30' 5.553 W
1,100.00		93.22	1,089.64	-6.24	110.80	14,534,126.43	2,060,029.76	40° 0' 45.018 N	109° 30' 5.221 W
1,200.00		93.22	1,185.27	-7.89	139.99	14,534,125.27	2,060,058.98	40° 0' 45.001 N	109° 30' 4.846 W
1,300.00		93.22	1,279.82	-9.72	172.49	14,534,123.99	2,060,091.51	40° 0' 44.983 N	109° 30' 4.428 W
	07.59 hold at 1		,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
1,400.00		93.22	1,373.78	-11.64	206.64	14,534,122.64	2,060,125.68	40° 0' 44.964 N	109° 30' 3.989 W
1,500.00		93.22	1,467.75	-13.56	240.79	14,534,121.29	2,060,159.86	40° 0' 44.945 N	109° 30' 3.550 W
1,532.19		93.22	1,498.00	-14.18	251.78	14,534,120.86	2,060,170.86	40° 0' 44.939 N	109° 30' 3.409 W
GREEN	RIVER								
1,600.00		93.22	1,561.72	-15.49	274.94	14,534,119.94	2,060,194.03	40° 0' 44.926 N	109° 30' 3.111 W
1,700.00	20.00	93.22	1,655.69	-17.41	309.09	14,534,118.59	2,060,228.21	40° 0' 44.907 N	109° 30' 2.673 W
1,800.00	20.00	93.22	1,749.66	-19.33	343.23	14,534,117.25	2,060,262.38	40° 0' 44.888 N	109° 30' 2.234 W
1,900.00	20.00	93.22	1,843.63	-21.26	377.38	14,534,115.90	2,060,296.56	40° 0' 44.869 N	109° 30' 1.795 W
2,000.00	20.00	93.22	1,937.60	-23.18	411.53	14,534,114.55	2,060,330.73	40° 0' 44.850 N	109° 30' 1.356 W
2,100.00		93.22	2,031.57	-25.10	445.68	14,534,113.20	2,060,364.91	40° 0' 44.831 N	109° 30' 0.917 W
2,200.00		93.22	2,125.54	-27.03	479.83	14,534,111.85	2,060,399.08	40° 0' 44.812 N	109° 30' 0.478 W
2,300.00		93.22	2,219.51	-28.95	513.97	14,534,110.50	2,060,433.26	40° 0' 44.793 N	109° 30' 0.039 W
2,400.00		93.22	2,313.48	-30.87	548.12	14,534,109.15	2,060,467.43	40° 0' 44.774 N	109° 29' 59.600 W
2,500.00		93.22	2,407.45	-32.80	582.27	14,534,107.80	2,060,501.61	40° 0' 44.755 N	109° 29' 59.161 W
2,502.72	20.00	93.22	2,410.00	-32.85	583.20	14,534,107.77	2,060,502.54	40° 0' 44.754 N	109° 29' 59.149 W
8 5/8"	20.00	00.00	0.504.40	24.72	040.40	44.504.400.45	0.000 505 70	40° 01 44 700 N	400% 201 50 702 144
2,600.00 2,700.00		93.22 93.22	2,501.42 2,595.39	-34.72 -36.64	616.42 650.56	14,534,106.45	2,060,535.78	40° 0' 44.736 N	109° 29' 58.722 W 109° 29' 58.283 W
						14,534,105.11 14,534,103.76	2,060,569.96	40° 0' 44.717 N	109° 29' 57.844 W
2,800.00 2,900.00		93.22 93.22	2,689.35 2,783.32	-38.57 -40.49	684.71 718.86	14,534,103.76	2,060,604.14 2,060,638.31	40° 0' 44.698 N 40° 0' 44.679 N	109 29 57.644 W
3,000.00		93.22	2,763.32	-40.49 -42.41	753.01	14,534,101.06	2,060,672.49	40° 0' 44.660 N	109° 29' 56.966 W
3,100.00		93.22	2,971.26	-44.34	787.16	14,534,099.71	2,060,706.66	40° 0' 44.641 N	109° 29' 56.527 W
3,200.00		93.22	3,065.23	-46.26	821.30	14,534,098.36	2,060,740.84	40° 0' 44.622 N	109° 29' 56.088 W
3,300.00		93.22	3,159.20	-48.18	855.45	14,534,097.01	2,060,775.01	40° 0' 44.603 N	109° 29' 55.649 W
3,400.00		93.22	3,253.17	-50.11	889.60	14,534,095.66	2,060,809.19	40° 0' 44.584 N	109° 29' 55.211 W
3,500.00		93.22	3,347.14	-52.03	923.75	14,534,094.31	2,060,843.36	40° 0' 44.565 N	109° 29' 54.772 W
3,600.00	20.00	93.22	3,441.11	-53.95	957.90	14,534,092.96	2,060,877.54	40° 0' 44.546 N	109° 29' 54.333 W
3,700.00	20.00	93.22	3,535.08	-55.88	992.04	14,534,091.62	2,060,911.71	40° 0' 44.527 N	109° 29' 53.894 W
3,800.00	20.00	93.22	3,629.05	-57.80	1,026.19	14,534,090.27	2,060,945.89	40° 0' 44.508 N	109° 29' 53.455 W
3,900.00		93.22	3,723.02	-59.72	1,060.34	14,534,088.92	2,060,980.06	40° 0' 44.489 N	109° 29' 53.016 W
4,000.00		93.22	3,816.99	-61.65	1,094.49	14,534,087.57	2,061,014.24	40° 0' 44.470 N	109° 29' 52.577 W
4,100.00		93.22	3,910.95	-63.57	1,128.64	14,534,086.22	2,061,048.41	40° 0' 44.451 N	109° 29' 52.138 W
4,200.00		93.22	4,004.92	-65.49	1,162.78	14,534,084.87	2,061,082.59	40° 0' 44.432 N	109° 29' 51.699 W
4,207.59		93.22	4,012.06	-65.64	1,165.38	14,534,084.77	2,061,085.19	40° 0' 44.430 N	109° 29' 51.666 W
Start Dr	•	00.00	4 000 00	67.04	1 105 50	14 524 000 50	2.064.445.20	40° 01 44 440 N	400° 201 54 270 144
4,300.00	18.15	93.22	4,099.39	-67.34	1,195.53	14,534,083.58	2,061,115.36	40° 0' 44.413 N	109° 29' 51.278 W



Company:

SDI Planning Report - Geographic



EDM5000-RobertS-Local Database:

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

NBU 921-25C Pad Site: Well: NBU 921-25B3AS

Wellbore: ОН Design: PLAN #1 Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 921-25B3AS

GL 4932' & RKB 14' @ 4946.00ft

(ASSUMED)

GL 4932' & RKB 14' @ 4946.00ft

(ASSUMED) True

Planned Survey	,								
Measured			Vertical			Мар	Мар		
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
	16.15	93.22	4,194.94	-69.00			2,061,144.83	40° 0' 44.397 N	109° 29' 50.900 W
4,400.00 4,500.00	14.15	93.22	4,194.94	-70.47	1,224.97 1,251.07	14,534,082.41 14,534,081.38	2,061,170.94	40° 0' 44.382 N	109° 29' 50.564 W
4,600.00	12.15	93.22	4,388.83	-70.47 -71.75	1,273.78	14,534,080.49	2,061,170.94	40° 0' 44.370 N	109° 29' 50.272 W
4,700.00	10.15	93.22	4,486.93	-71.73	1,293.09	14,534,079.72	2,061,213.00	40° 0' 44.359 N	109° 29' 50.024 W
4,800.00	8.15	93.22	4,585.66	-73.73	1,308.97	14,534,079.10	2,061,228.89	40° 0' 44.350 N	109° 29' 49.820 W
4,900.00	6.15	93.22	4,684.87	-74.43	1,321.40	14,534,078.60	2,061,241.33	40° 0' 44.343 N	109° 29' 49.660 W
4,981.48	4.52	93.22	4,766.00	-74.86	1,328.97	14,534,078.31	2,061,248.91	40° 0' 44.339 N	109° 29' 49.563 W
WASATO		00.22	1,7 00.00	7 1.00	1,020.01	11,001,010.01	2,001,210.01	10 0 11.00011	100 20 10.000 11
5,000.00	4.15	93.22	4,784.46	-74.93	1,330.36	14,534,078.25	2,061,250.31	40° 0' 44.338 N	109° 29' 49.545 W
5,100.00	2.15	93.22	4,884.31	-75.24	1,335.85	14,534,078.03	2,061,255.80	40° 0' 44.335 N	109° 29' 49.474 W
5,200.00	0.15	93.22	4,984.28	-75.36	1,337.86	14,534,077.95	2,061,257.81	40° 0' 44.334 N	109° 29' 49.449 W
5,207.59	0.00	0.00	4,991.88	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
	9.12 hold at 5		1,001100		.,	,	_,,,_,,_		
5,300.00	0.00	0.00	5,084.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
5,400.00	0.00	0.00	5,184.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
5,500.00	0.00	0.00	5,284.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
5,600.00	0.00	0.00	5,384.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
5,700.00	0.00	0.00	5,484.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
5,800.00	0.00	0.00	5,584.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
5,900.00	0.00	0.00	5,684.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
6,000.00	0.00	0.00	5,784.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
6,100.00	0.00	0.00	5,884.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
6,200.00	0.00	0.00	5,984.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
6,300.00	0.00	0.00	6,084.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
6,400.00	0.00	0.00	6,184.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
6,500.00	0.00	0.00	6,284.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
6,600.00	0.00	0.00	6,384.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
6,700.00	0.00	0.00	6,484.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
6,800.00	0.00	0.00	6,584.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
6,900.00	0.00	0.00	6,684.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
7,000.00	0.00	0.00	6,784.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
7,100.00	0.00	0.00	6,884.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
7,200.00	0.00	0.00	6,984.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
7,300.00	0.00	0.00	7,084.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
7,400.00	0.00	0.00	7,184.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
7,500.00	0.00	0.00	7,284.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
7,600.00	0.00	0.00	7,384.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
7,700.00	0.00	0.00	7,484.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W 109° 29' 49.448 W
7,800.00	0.00	0.00	7,584.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	
7,900.00	0.00	0.00	7,684.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
8,000.00	0.00	0.00	7,784.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
8,100.00 8,200.00	0.00	0.00 0.00	7,884.28 7,984.28	-75.36 -75.36	1,337.87 1,337.87	14,534,077.95 14,534,077.95	2,061,257.82 2,061,257.82	40° 0' 44.334 N 40° 0' 44.334 N	109° 29' 49.448 W 109° 29' 49.448 W
8,300.00	0.00	0.00	8,084.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
8,400.00	0.00	0.00	8,184.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
8,500.00	0.00	0.00	8,284.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
8,591.72	0.00	0.00	8,376.00	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
MESAVE			-,		,	, ,	, ,		
8,600.00	0.00	0.00	8,384.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
8,700.00	0.00	0.00	8,484.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
8,800.00	0.00	0.00	8,584.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
8,900.00	0.00	0.00	8,684.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			-,		,	, ,	,,		



SDI Planning Report - Geographic



EDM5000-RobertS-Local Database:

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

NBU 921-25C Pad Site: Well: NBU 921-25B3AS

Wellbore: ОН Design: PLAN #1 Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 921-25B3AS

GL 4932' & RKB 14' @ 4946.00ft

(ASSUMED)

GL 4932' & RKB 14' @ 4946.00ft (ASSUMED)

True

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,000.00	0.00	0.00	8,784.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
9,100.00	0.00	0.00	8,884.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
9,200.00	0.00	0.00	8,984.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
9,300.00	0.00	0.00	9,084.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
9,400.00	0.00	0.00	9,184.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
9,500.00	0.00	0.00	9,284.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
9,600.00	0.00	0.00	9,384.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
9,700.00	0.00	0.00	9,484.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
9,800.00	0.00	0.00	9,584.28	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
9,876.72	0.00	0.00	9,661.00	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W
TD at 98	76.72 - NBU 92	21-25B3AS P	BHL						

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
NBU 921-25B3AS PBHL - plan hits target cen - Circle (radius 25.00		0.00	9,661.00	-75.36	1,337.87	14,534,077.95	2,061,257.82	40° 0' 44.334 N	109° 29' 49.448 W

Casing Points					
	Measured	Vertical		Casing	Hole
	Depth	Depth		Diameter	Diameter
	(ft)	(ft)	Name	(in)	(in)
	2,502.72	2,410.00 8 5/8"		8.625	11.000

Formations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,532.19 4,981.48		GREEN RIVER WASATCH				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coor +N/-S	dinates +E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.0	300.00	0.00	0.00	Start Build 2.00
1,300.0	1,279.82	-9.72	172.49	Start 2907.59 hold at 1300.00 MD
4,207.5	9 4,012.06	-65.64	1,165.38	Start Drop -2.00
5,207.5	9 4,991.88	-75.36	1,337.87	Start 4669.12 hold at 5207.59 MD
9,876.7	9,661.00	-75.36	1,337.87	TD at 9876.72

NBU 921-25B3AS

Surface: 645' FNL 1,955' FWL (NE/4NW/4) BHL: 720' FNL 1,985' FEL (NW/4NE/4)

NBU 921-25B3DS

Surface: 654' FNL 1,972' FWL (NE/4NW/4) BHL: 1,070' FNL 1,985' FEL (NW/4NE/4)

NBU 921-25C2DS

Surface: 640' FNL 1,946' FWL (NE/4NW/4) BHL: 504' FNL 1,975' FWL (NE/4NW/4)

NBU 921-25C3AS

Surface: 650' FNL 1,964' FWL (NE/4NW/4) BHL: 841' FNL 1,975' FWL (NE/4NW/4)

> Pad: NBU 921-25C Section 25 T9S R21E Mineral Lease: UO 1189 ST

Uintah County, Utah Operator: Kerr-McGee Oil & Gas Onshore LP

MULTI-POINT SURFACE USE PLAN of OPERATIONS (SUPO)

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including, but not limited to, APDs/SULAs/ROEs/ROWs and/or easements).

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. <u>Existing Roads</u>:

Existing roads consist of county roads and improved/unimproved lease roads. APC/KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and

NBU 921-25B3AS / 25B3DS/ 25C2DS/ 25C3AS

utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

No new access road to this pad location is proposed (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

Where roads are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

Turnouts; major cut and fills; culverts; bridges; gates; cattle guards; low water crossings; or modifications needed to existing infrastructure/facilities were determined at the on-site and, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the NBU 97, which is a vertical producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of August 16, 2010.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of each well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) aboveground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of UDOGM. Gathering facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 1,450$ ' and the individual segments are broken up as follows:

- ± 120 ' (0.02 miles) –New 6" buried gas pipeline from the meter to the edge of the pad.
- ± 50 ' (0.01 miles) –New 6" buried gas pipeline from the edge of pad to the NBU 921-25D pad intersection.
- $\pm 1,280$ ' (0.2 miles) –New 8" buried gas pipeline from the NBU 921-25D pad intersection to the existing 10" gas pipeline tie in point.

The total liquid gathering pipeline distance from the meter to the tie in point is $\pm 1,430$ ' and the individual segments are broken up as follows:

- ± 120 ' (0.02 miles) –New 6" buried liquid pipeline from the meter to the edge of the pad. ± 50 ' (0.01 miles) –New 6" buried liquid pipeline from the edge of pad to the NBU 921-25D pad intersection.
- ±1,260' (0.2 miles) –New 6" buried liquid pipeline from the NBU 921-25D pad intersection to the existing buried liquid pipeline tie in point.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. Kerr-McGee requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, Kerr-McGee requests a temporary 45' construction right-of-way and 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. <u>Location and Type of Water Supply:</u>

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods of Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E

Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Ouray #1 SWD in Sec. 1 T9S R21E NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 33 T9S R21E NBU 921-34L SWD in Sec. 34 T9S R21E

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20-mil or thicker, The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary to subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, accidental release, or in excess of reportable quantities will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule, and, where State wells are participatory to a Federal agreement, according to NTL-3A.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition,

no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1983 (NAD83) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but are not limited to: re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where

possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by APC/KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for revegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA 675 East 500 South, Suite 500 Salt Lake City, UT 84102

K. Other Information:

A Class I literature survey was conducted by Montgomery Archaeological Consultants, Inc. (MOAC). For additional details please refer to report MOAC 10-141.

A paleontological reconnaissance was conducted by Intermountain Paleo-Consulting (IPC). For additional details please refer to report IPC 10-20.

A biological field survey was completed by Grasslands Consulting, Inc. on July 13, 2010 and August 10, 2010. For additional details please refer to report GCI-306.

M. <u>Lessee's or Operators' Representative & Certification</u>:

Danielle Piernot Regulatory Analyst I Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6156 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

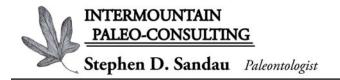
Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot

August 16, 2010

Date



P. O. Box 1125 Vernal, UT. 84078 Phone & Fax (435) 789-7402 Cell: (801) 592-4328 E-mail: intermountainpaleo@yahoo.com

IPC #10-20

Paleontological Reconnaissance Survey Report

Block Section Survey of the NW Quarter of Section 25, including Kerr McGee's Proposed "NBU #921-25C, 25C2DS, 25B3AS, 25C3AS, & 25B3DS; NBU #921-25D, 25C1AS, D1BS, D1CS, E3AS, E1CS; NBU #921- 25F, 25F1BS, 25F3AS, 25F3CS, 25L1BS" (Sec. 25, T 9 S, R 21 E)

Ouray SE and Red Wash SW Topographic Quadrangles Uintah County, Utah

August 11, 2010

Prepared by Stephen D. Sandau Paleontologist for Intermountain Paleo-Consulting P. O. Box 1125 Vernal, Utah 84078



CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S PROPOSED NBU 921-25B3AS, NBU 921-25B3DS, NBU 921-25C2DS, NBU 921-25C3AS, NBU 921-25J1DS, NBU 921-25J4AS, AND NBU 921-25J4CS WELL LOCATIONS IN T9S, R21E, SECTION 25 (MOAC Report No. 10-141) UINTAH COUNTY, UTAH

By:

Nicole Shelnut

Prepared For:

State of Utah
School and Institutional Trust Lands Administration
and
Bureau of Land Management
Vernal Field Office

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP 1368 South 1200 East Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc. P.O. Box 219 Moab, Utah 84532

MOAC Report No. 10-141

August 12, 2010

State of Utah Public Lands Policy Coordination Office Permit No. 117

United States Department of Interior (FLPMA)
Permit No. 10-UT-60122



Grasslands Consulting, Inc.

4800 Happy Canyon Road, Suite 110, Denver, CO 80237 (303) 759-5377 Office (303) 759-5324 Fax

SPECIAL STATUS PLANT AND WILDLIFE SPECIES REPORT

Report Number: GCI-306

Report Date: August 11, 2010

Operator: Kerr-McGee Oil & Gas Onshore LP

Wells: NBU 921-25C well pad (Bores: NBU 921-25C2DS, NBU 921-25B3AS, NBU 921-

25C3AS, and NBU 921-25B3DS)

Pipeline: Associated pipelines leading to proposed location

Access Road: Existing access road (not surveyed)

Location: Section 25, Township 09 South, Range 21 East; Uintah County, Utah (see Project

Map)

Survey-Species: Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*)

Survey Dates: July 13 and August 10, 2010

Observers: Grasslands Consulting, Inc. Biologists Nick Hall, Dan Hamilton, Brad Snopek, Josh

Christensen, and field technicians.





Kerr-McGee Oil & Gas Onshore LP PO Box 173779 DENVER, CO 80217-3779

August 16, 2010

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 921-25B3AS

T9S-R21E

Section 25: NENW surface, NWNE bottom hole

Surface: 645' FNL, 1955' FWL Bottom Hole: 720' FNL, 1985' FEL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee's NBU 921-25B3AS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

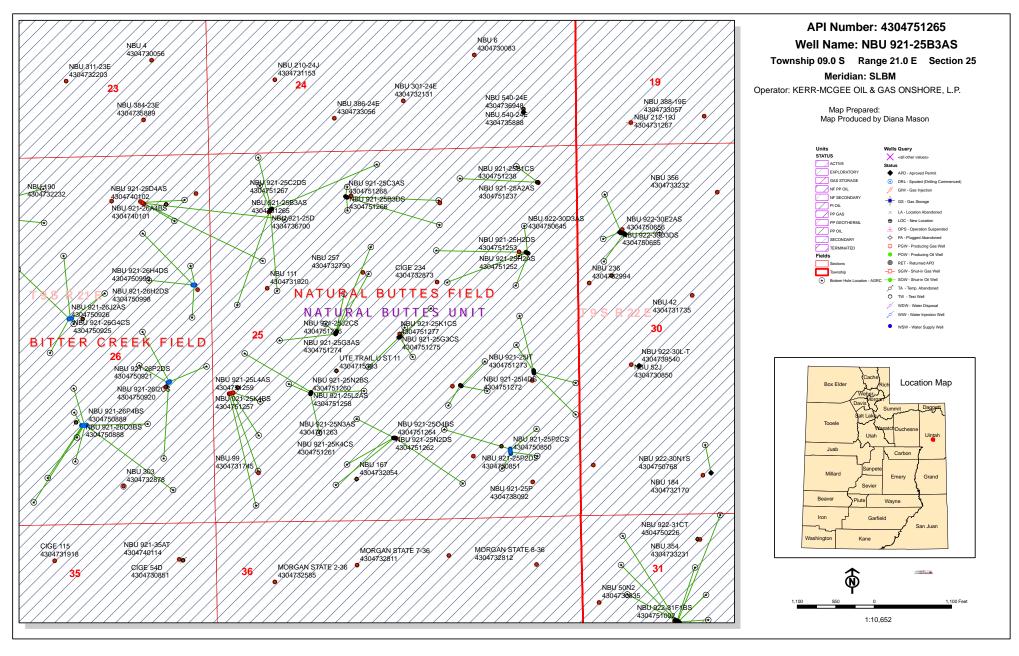
Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joe Matney

Sr. Staff Landman



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

August 17, 2010

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2010 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 921-25A Pad

43-047-51237 NBU 921-25A2AS Sec 25 T09S R21E 0489 FNL 0565 FEL BHL Sec 25 T09S R21E 0252 FNL 0865 FEL

43-047-51238 NBU 921-25B1CS Sec 25 T09S R21E 0489 FNL 0575 FEL BHL Sec 25 T09S R21E 0416 FNL 1676 FEL

NBU 921-25D Pad

43-047-51239 NBU 921-25C1AS Sec 25 T09S R21E 0800 FNL 0893 FWL BHL Sec 25 T09S R21E 0190 FNL 2405 FWL

BHL Sec 25 TU95 RZIE UI90 FNL 2405 FWL

43-047-51240 NBU 921-25D1BS Sec 25 T09S R21E 0807 FNL 0885 FWL BHL Sec 25 T09S R21E 0060 FNL 0716 FWL

43-047-51241 NBU 921-25E1CS Sec 25 T09S R21E 0821 FNL 0871 FWL BHL Sec 25 T09S R21E 1976 FNL 0947 FWL

43-047-51242 NBU 921-25E3AS Sec 25 T09S R21E 0828 FNL 0864 FWL

BHL Sec 25 T09S R21E 2162 FNL 0371 FWL

43-047-51251 NBU 921-25D1CS Sec 25 T09S R21E 0814 FNL 0878 FWL

BHL Sec 25 T09S R21E 0460 FNL 0726 FWL

API # WELL NAME LOCATION (Proposed PZ WASATCH-MESA VERDE) NBU 921-25F Pad 43-047-51243 NBU 921-25F1BS Sec 25 T09S R21E 2580 FNL 1780 FWL BHL Sec 25 T09S R21E 1366 FNL 2296 FWL 43-047-51244 NBU 921-25F1CS Sec 25 T09S R21E 2571 FNL 1784 FWL BHL Sec 25 T09S R21E 1754 FNL 2259 FWL 43-047-51245 NBU 921-25F3AS Sec 25 T09S R21E 2589 FNL 1776 FWL BHL Sec 25 T09S R21E 2034 FNL 1905 FWL 43-047-51246 NBU 921-25F3CS Sec 25 T09S R21E 2598 FNL 1772 FWL BHL Sec 25 T09S R21E 2461 FNL 1628 FWL 43-047-51247 NBU 921-25L1BS Sec 25 T09S R21E 2607 FNL 1768 FWL BHL Sec 25 T09S R21E 2597 FSL 0969 FWL NBU 921-25H Pad 43-047-51248 NBU 921-25A3DS Sec 25 T09S R21E 1498 FNL 0736 FEL BHL Sec 25 T09S R21E 1110 FNL 0776 FEL 43-047-51249 NBU 921-25G1CS Sec 25 T09S R21E 1489 FNL 0754 FEL BHL Sec 25 T09S R21E 1895 FNL 1893 FEL 43-047-51250 NBU 921-25G2AS Sec 25 T09S R21E 1484 FNL 0763 FEL BHL Sec 25 T09S R21E 1439 FNL 2042 FEL 43-047-51252 NBU 921-25H2AS Sec 25 T09S R21E 1493 FNL 0745 FEL BHL Sec 25 T09S R21E 1538 FNL 0857 FEL 43-047-51253 NBU 921-25H2DS Sec 25 T09S R21E 1502 FNL 0727 FEL BHL Sec 25 T09S R21E 1958 FNL 0913 FEL NBU 921-25J Pad 43-047-51254 NBU 921-25J4AS Sec 25 T09S R21E 1878 FSL 1725 FEL BHL Sec 25 T09S R21E 1795 FSL 1360 FEL 43-047-51255 NBU 921-25J4CS Sec 25 T09S R21E 1886 FSL 1743 FEL BHL Sec 25 T09S R21E 1604 FSL 1920 FEL 43-047-51256 NBU 921-25J1DS Sec 25 T09S R21E 1882 FSL 1734 FEL BHL Sec 25 T09S R21E 2218 FSL 1381 FEL NBU 921-25K Pad 43-047-51257 NBU 921-25K4BS Sec 25 T09S R21E 1838 FSL 1400 FWL BHL Sec 25 T09S R21E 1848 FSL 2161 FWL

43-047-51258 NBU 921-25L2AS Sec 25 T09S R21E 1848 FSL 1402 FWL

BHL Sec 25 T09S R21E 2423 FSL 0465 FWL

API #	WE:	LL NAME			LOCA'	TION		
(Proposed PZ	WASA	ATCH-MESA VI	ERDE)	ı				
43-047-51259	NBU				 R21E R21E		_	
43-047-51260	NBU				R21E R21E			
NBU 921-25N	Pad							
43-047-51261	NBU				R21E R21E			
43-047-51262	NBU				R21E R21E			
43-047-51263	NBU				R21E R21E			
43-047-51264	NBU				 R21E R21E		_	
NBU 921-25C	Pad							
43-047-51265	NBU				 R21E R21E			
43-047-51266	NBU				R21E R21E			
43-047-51267	NBU				R21E R21E			
43-047-51268	NBU				R21E R21E			
NBU 921-25I 1	Pad							
43-047-51269	NBU				R21E R21E			
43-047-51270	NBU				R21E R21E			
43-047-51271	NBU				 R21E R21E		_	
43-047-51272	NBU				R21E R21E			
43-047-51273	NBU				R21E R21E			

Page 4

API # WELL NAME

LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 921-25J2 Pad

43-047-51274 NBU 921-25G3AS Sec 25 T09S R21E 2611 FSL 2578 FEL BHL Sec 25 T09S R21E 2265 FNL 2136 FEL 43-047-51275 NBU 921-25G3CS Sec 25 T09S R21E 2606 FSL 2587 FEL BHL Sec 25 T09S R21E 2530 FNL 2518 FEL 43-047-51276 NBU 921-25J2CS Sec 25 T09S R21E 2601 FSL 2596 FEL BHL Sec 25 T09S R21E 2310 FSL 2410 FEL 43-047-51277 NBU 921-25K1CS Sec 25 T09S R21E 2596 FSL 2605 FEL BHL Sec 25 T09S R21E 2186 FSL 2231 FWL

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

| Digitally (signed by Michael Michael Coulthard of Minneralk, principal of Minneralk, coulthard of Minn

bcc: File - Natural Buttes Unit Division of Oil Gas and Mining Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:8-17-10

From: Jim Davis

To: Bonner, Ed: Garrison, LaVonne: Hill, Brad: Mason, Diana

CC: Bartlett, Floyd; Laura.Gianakos@anadarko.com; Piernot, Danielle; Upch...

Date: 9/2/2010 9:13 AM

Subject: SITLA approval of Kerr McGee wells **Attachments:** KMG approvals and paleo 9.1.2010.xlsx

The following wells have been approved by SITLA including arch clearance. Paleo clearance is also granted with stipulations as noted.

Full Paleo monitoring: All ground-disturbing activities must be monitored by a permitted paleontologist.

```
NBU 922-29F4DS [API #4304751207] Full Monitoring IPC 10-08
 NBU 922-29G4CS [API #4304751208] Full Monitoring
                                                  IPC 10-08
 NBU 922-29J4BS [API #4304751209] Full Monitoring
                                                  IPC 10-08
 NBU 922-29K1DS [API #4304751210] Full Monitoring
                                                  IPC 10-08
 NBU 922-29G1AS [API #4304751194] Full Monitoring
                                                  IPC 10-06
 NBU 922-29G1DS [API #4304751195] Full Monitoring
                                                  IPC 10-06
 NBU 922-29G2BS [API #4304751196] Full Monitoring
                                                  IPC 10-06
 NBU 922-29G3BS [API #4304751197] Full Monitoring
                                                  IPC 10-06
NBU 921-25A3DS [API 4304751248]
                                   Full Monitoring
                                                  IPC 10-21
NBU 921-25G1CS [API 4304751249]
                                                  IPC 10-21
                                   Full Monitoring
NBU 921-25G2AS [API 4304751250]
                                   Full Monitoring
                                                  IPC 10-21
NBU 921-25H2AS [API 4304751252]
                                   Full Monitoring IPC 10-21
NBU 921-25H2DS [API 4304751253]
                                   Full Monitoring IPC 10-21
NBU 921-25G3AS [API 4304751274]
                                   Full Monitoring IPC 10-23
NBU 921-25G3CS [API 4304751275]
                                   Full Monitoring
                                                  IPC 10-23
NBU 921-25J2CS [API 4304751276]
                                                  IPC 10-23
                                    Full Monitoring
NBU 921-25K1CS [API 4304751277]
                                   Full Monitoring IPC 10-23
NBU 921-25A2AS [API 4304751237]
                                   Full Monitoring IPC 10-21
NBU 921-25B1CS [API 4304751238]
                                    Full Monitoring IPC 10-21
```

Spot Paleo Monitoring: All ground-disturbing activities must be monitored by a permitted paleontologist at the beginning of construction and thereafter spot-monitored as paleontological conditions merit.

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NBU 921-25C1AS [API 4304751239]
                                    Spot Monitoring IPC 10-20
NBU 921-25D1BS [API 4304751240]
                                    Spot Monitoring IPC 10-20
NBU 921-25D1CS [API 4304751251]
                                   Spot Monitoring IPC 10-20
NBU 921-25E1CS [API 4304751241]
                                    Spot Monitoring IPC 10-20
NBU 921-25E3AS [API 4304751242]
                                    Spot Monitoring IPC 10-20
NBU 921-25F1BS [API 4304751243]
                                    Spot Monitoring IPC 10-21
NBU 921-25F1CS [API 4304751244]
                                    Spot Monitoring IPC 10-21
NBU 921-25F3AS [API 4304751245]
                                    Spot Monitoring IPC 10-21
NBU 921-25F3CS [API 4304751246]
                                    Spot Monitoring IPC 10-21
NBU 921-25L1BS [API 4304751247]
                                    Spot Monitoring IPC 10-21
NBU 921-25J1DS [API 4304751256]
                                    Spot Monitoring IPC 10-23
NBU 921-25J4AS [API 4304751254]
                                    Spot Monitoring IPC 10-23
NBU 921-25J4CS [API 4304751255]
                                    Spot Monitoring IPC 10-23
                                    Spot Monitoring IPC 10-22
NBU 921-25K4BS [API 4304751257]
NBU 921-25L2AS [API 4304751258]
                                    Spot Monitoring IPC 10-22
NBU 921-25L4AS [API 4304751259]
                                    Spot Monitoring IPC 10-22
NBU 921-25N2BS [API 4304751260]
                                    Spot Monitoring IPC 10-22
NBU 921-25K4CS [API 4304751261]
                                    Spot Monitoring IPC 10-23
NBU 921-25N2DS [API 4304751262]
                                    Spot Monitoring IPC 10-23
NBU 921-25N3AS [API 4304751263]
                                    Spot Monitoring IPC 10-23
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NBU 921-25O4BS [API 4304751264]
                                    Spot Monitoring IPC 10-23
NBU 921-25B3AS [API 4304751265]
                                    Spot Monitoring IPC 10-20
NBU 921-25B3DS [API 4304751266]
                                    Spot Monitoring IPC 10-20
                                    Spot Monitoring IPC 10-20
NBU 921-25C2DS [API 4304751267]
NBU 921-25C3AS [API 4304751268]
                                    Spot Monitoring IPC 10-20
NBU 921-25IT [API 4304751273]
                                    Spot Monitoring IPC 10-23
NBU 921-25H3DS [API 4304751269]
                                    Spot Monitoring IPC 10-23
                                    Spot Monitoring IPC 10-23
NBU 921-2512AS [API 4304751270]
                                    Spot Monitoring IPC 10-23
NBU 921-25I4AS [API 4304751271]
NBU 921-25I4DS [API 4304751272]
                                    Spot Monitoring IPC 10-23
NBU 922-29A1BS [API #4304751183]
                                    Spot Monitoring IPC 10-06
 NBU 922-29A1CS [API #4304751184] Spot Monitoring IPC 10-06
 NBU 922-29A4CS [API #4304751185] Spot Monitoring IPC 10-06
 NBU 922-29H1BS [API #4304751186] Spot Monitoring IPC 10-06
 NBU 922-29B2CS [API #4304751187] Spot Monitoring IPC 10-06
 NBU 922-29B4AS [API #4304751188] Spot Monitoring IPC 10-06
                                                             (SITLA surf/ Fed Min)
 NBU 922-29C2AS [API #4304751189] Spot Monitoring IPC 10-06
                                                             (SITLA surf/ Fed Min)
 NBU 922-29C4AS [API #4304751190] Spot Monitoring IPC 10-06
 NBU 922-29B1AS [API #4304751191] Spot Monitoring IPC 10-06
 NBU 922-29B1DS [API #4304751192] Spot Monitoring IPC 10-06
 NBU 922-29B2BS [API #4304751193] Spot Monitoring IPC 10-06
 NBU 922-29D4DS [API #4304751198] Spot Monitoring IPC 10-05
 NBU 922-29E3BS [API #4304751199] Spot Monitoring IPC 10-05
 NBU 922-29F3AS [API #4304751200] Spot Monitoring IPC 10-05
 NBU 922-29F3BS [API #4304751201] Spot Monitoring IPC 10-05
 NBU 922-29G4AS [API #4304751202] Spot Monitoring IPC 10-06
 NBU 922-29H1CS [API #4304751203] Spot Monitoring IPC 10-06
 NBU 922-29H4CS [API #4304751204] Spot Monitoring IPC 10-06
 NBU 922-29I1BS [API #4304751205]
                                   Spot Monitoring IPC 10-06
 NBU 922-29I1CS [API #4304751206]
                                   Spot Monitoring IPC 10-06
 NBU 922-29K2CS [API #4304751211] Spot Monitoring IPC 10-07
 NBU 922-29K4AS [API #4304751212] Spot Monitoring IPC 10-07
 NBU 922-29L1AS [API #4304751213]
                                   Spot Monitoring IPC 10-07
 NBU 922-29L2BS [API #4304751214]
                                   Spot Monitoring IPC 10-07
 NBU 922-29L2CS [API #4304751215] Spot Monitoring IPC 10-07
 NBU 922-29L3CS [API #4304751216] Spot Monitoring IPC 10-07
 NBU 922-29M2AS [API #4304751217] Spot Monitoring IPC 10-07
 NBU 922-29N2BS [API #4304751218] Spot Monitoring IPC 10-07
 NBU 922-29N3BS [API #4304751219] Spot Monitoring IPC 10-07
 NBU 922-30I4BS [API #4304751220] Spot Monitoring IPC 10-07 (SITLA surf/ Fed Min)
 NBU 922-30I4CS [API #4304751221] Spot Monitoring IPC 10-07 (SITLA surf/Fed Min)
 NBU 922-29J4CS [API #4304751222] Spot Monitoring IPC 10-08
 NBU 922-29N1BS [API #4304751223] Spot Monitoring IPC 10-08
 NBU 922-29O1CS [API #4304751224] Spot Monitoring IPC 10-08
```

That's quite a list, so I'm attaching a quick-and-dirty spreadsheet of the same data. This may be helpful to some of you.

Thanks.

-Jim

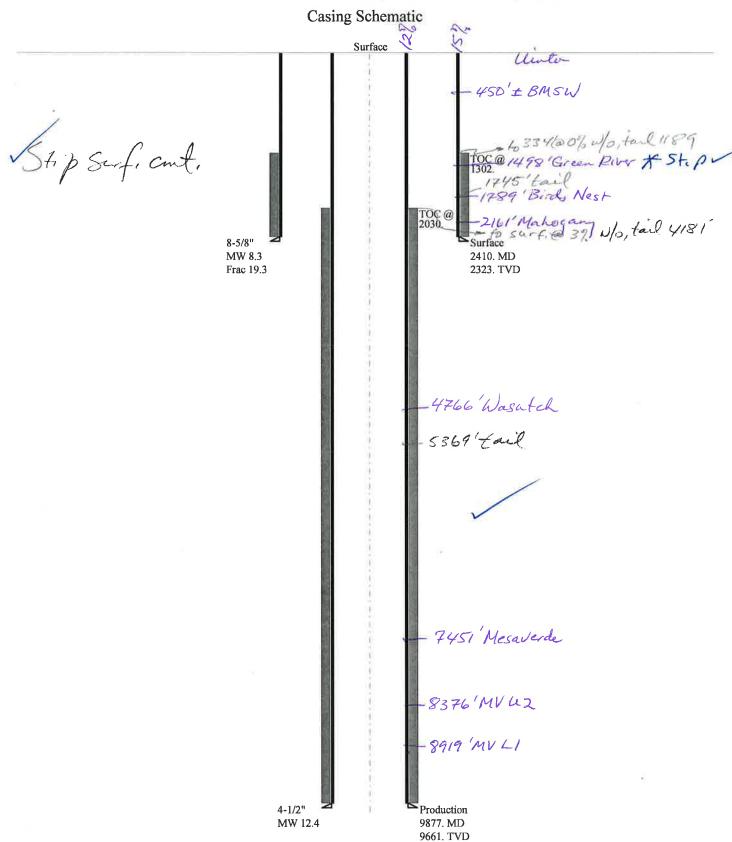
'APIWellNo:43047512650000'

Jim Davis Utah Trust Lands Administration jimdavis1@utah.gov Phone: (801) 538-5156

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 921-25B3AS 43047512650000

Well Name		KERR-MCGEE C	OIL	& GAS ONSHO	ORI	E, L.P. NBU 921-2	25B3	33AS 4304751264
String		Surf	Ī	Prod				
Casing Size(")		8.625	Ī	4.500			Ī	
Setting Depth (TVD)		2410	Ī	9661			Ī	
Previous Shoe Setting Dept	th (TVD)	40	Ī	2410			Ī	
Max Mud Weight (ppg)		8.3	Ï	12.4			Ī	<u></u>
BOPE Proposed (psi)		500	ľ	5000			Ī	
Casing Internal Yield (psi)		3390	Ī	7780			Ī	
Operators Max Anticipate	d Pressure (psi)	6086	ľ	12.1			Ī	
Calculations	Sui	rf String	_		_		625 —	5 "
Max BHP (psi)		.052*Sett	tin	g Depth*N	4 V	V= 1044		POPE AL A E D'III A 16 (C G C A D 10
MACD (C.) (2)		DIID (0.12)	*0	1 44' D	41	-	_	BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		ax BHP-(0.12			_		_	NO air drill
MASP (Gas/Mud) (psi)	Ma	ax BHP-(0.22°	*S	Setting Dep	oth	1)= 514		NO OK
D AAD CI	M DUD 22*(C #; E	2 d D :	_	CI D	-(1	-	_	*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe		Depth - Previo	ous	s Shoe Dep	oth	1)= 523	_	NO Reasonable depth in area
Required Casing/BOPE Te					_	2373	_	psi
*Max Pressure Allowed @	Previous Casing Shoe=					40		psi *Assumes 1psi/ft frac gradient
Calculations	Pro	od String	_		_	4.5	500	0 "
Max BHP (psi)		.052*Sett	tin	g Depth*N	4V	V= 6229	_	
u /			_			1,		BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Ma	ax BHP-(0.12	*S	Setting Dep	oth	n)= ₅₀₇₀	_	I NO I
MASP (Gas/Mud) (psi)		ax BHP-(0.22	_		_	1	=	YES OK
() (.)		. (11	_	<i>3</i> 1	_	7 14104	_	*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting I	Depth - Previo	ous	s Shoe Dep	oth	n)= 4634	<u> </u>	NO Reasonable
Required Casing/BOPE Te	est Pressure=					5000		psi
*Max Pressure Allowed @						2410	=	psi *Assumes 1psi/ft frac gradient
						1=		
Calculations		String						"
Max BHP (psi)		.052*Sett	tin	g Depth*N	1V	V=		
								BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Ma	ax BHP-(0.12	*S	Setting Dep	th	1)=		NO NO
MASP (Gas/Mud) (psi)	Ma	ax BHP-(0.22	*S	Setting Dep	th	1)=		NO
								*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting I	Depth - Previo	ous	s Shoe Dep	oth	1)=		NO
Required Casing/BOPE To	est Pressure=							psi
*Max Pressure Allowed @	Previous Casing Shoe=							psi *Assumes 1psi/ft frac gradient
Calculations		String	_		_		_	l n
Max BHP (psi)			tin	g Depth*N	4V	V=	_	
(F3-)				8 - 4 - 4		<u> </u>	_	BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Ma	ax BHP-(0.12	*S	Setting Den	oth	1)=	<u> </u>	NO NO
MASP (Gas/Mud) (psi)		ax BHP-(0.22°				1	=	I NO
() (F ⁻²⁻)		(*2	_	5 - P		_!	_	*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting I	ax BHP22*(Setting Depth - Previous Shoe Depth)=			1)=	_	I NO	
Required Casing/BOPE Test Pressure=				1		psi		
*Max Pressure Allowed @			_		_			psi *Assumes 1psi/ft frac gradient
. ~						11.	_	-1

43047512650000 NBU 921-25B3AS



43047512650000 NBU 921-25B3AS Well name:

KERR-MCGEE OIL & GAS ONSHORE, L.P. Operator:

Surface String type:

Project ID: 43-047-51265

UINTAH COUNTY Location:

Environment: Design parameters: Minimum design factors: H2S considered? No Collapse Collapse: Surface temperature: Mud weight: 8.330 ppg Design factor 1.125 74 °F 107 °F Bottom hole temperature: Design is based on evacuated pipe. Temperature gradient: 1.40 °F/100ft Minimum section length: 100 ft **Burst:** Design factor 1.00 1,302 ft Cement top: **Burst** Max anticipated surface pressure: 2,121 psi Internal gradient: 0.120 psi/ft Directional Info - Build & Drop Tension: Calculated BHP 8 Round STC: 1.80 (J) Kick-off point 300 ft 2,400 psi 1.70 (J) Departure at shoe: 552 ft 8 Round LTC: Buttress: 2 °/100ft 1.60 (J) Maximum dogleg: No backup mud specified. 1.50 (J) Inclination at shoe: 20° Premium: Body yield: 1.50 (B) Re subsequent strings:

> Next setting depth: 9,661 ft Tension is based on air weight. Next mud weight: 12.400 ppg Neutral point: 2.106 ft Next setting BHP: 6,223 psi Fracture mud wt: 19.250 ppg Fracture depth: 2,410 ft

Injection pressure:

2,410 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (Ibs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1 Run	2410 Collapse	8.625 Collapse	28.00 Collapse	l-55 Burst	LT&C Burst	2323 Burst	2410 Tension	7.892 Tension	95436 Tension
Seq 1	Load (psi) 1005	Strength (psi)	Design Factor 1.870	Load (psi) 2400	Strength (psi) 3390	Design Factor 1.41	Load (kips) 65	Strength (kips) 348	Design Factor 5.35 J

Helen Sadik-Macdonald Prepared Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: September 30,2010 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2323 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:

43047512650000 NBU 921-25B3AS

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Location:

Production

Project ID:

UINTAH

43-047-51265

Design parameters: Collapse Mud weight:

COUNTY

12.400 ppg

2.330 ppg

Environment:

Collapse:

Design factor

Minimum design factors:

H2S considered? Surface temperature: 1.125

No 74 °F

Bottom hole temperature:

209 °F

Temperature gradient: Minimum section length: 1.40 °F/100ft 100 ft

Burst:

Design factor

Tension:

Buttress:

8 Round STC:

8 Round LTC:

1.00

1.80 (J)

1.80 (J)

1.60 (J)

Cement top:

2,030 ft

Burst

Max anticipated surface

No backup mud specified.

Internal fluid density:

pressure: Internal gradient: Calculated BHP

4,098 psi 0.220 psi/ft

6,223 psi

Body yield:

1.50 (J) Premium: 1.60 (B)

Tension is based on air weight.

Directional Info - Build & Drop

Kick-off point 300 ft Departure at shoe: 1340 ft Maximum dogleg: 2 °/100ft

0° Inclination at shoe:

Neutral point: 8.086 ft

Segment		Nominal		End	True Vert	Measured	Drift	Est.
Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost
(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
9877	4.5	11.60	I-80	LT&C	9661	9877	3.875	130376
Collopes	Collance	Collance	Durot	Buret	Buret	Tonsion	Tonsion	Tension
•	•	•						
Load	Strength	Design		Strength	_		-	Design
(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
5054	6360	1.258	6223	7780	1.25	112.1	212	1.89 J
	Length (ft) 9877 Collapse Load (psi)	Length Size (ft) (in) 9877 4.5 Collapse Collapse Load Strength (psi) (psi)	Length Size Weight (ft) (in) (lbs/ft) 9877 4.5 11.60 Collapse Collapse Collapse Load Strength Design (psi) (psi) Factor	Length Size Weight Grade (ft) (in) (lbs/ft) 9877 4.5 11.60 I-80 Collapse Collapse Collapse Burst Load Strength Design Load (psi) (psi) Factor (psi)	Length Size Weight Grade Finish (ft) (in) (lbs/ft) 9877 4.5 11.60 I-80 LT&C Collapse Collapse Collapse Burst Burst Load Strength Design Load Strength (psi) (psi) Factor (psi) (psi)	Length Size Weight Grade Finish Depth (ft) (in) (lbs/ft) (ft) 9877 4.5 11.60 I-80 LT&C 9661 Collapse Collapse Collapse Burst Burst Burst Load Strength Design Load Strength Design (psi) (psi) Factor (psi) (psi) Factor	LengthSizeWeightGradeFinishDepthDepth(ft)(in)(lbs/ft)(ft)(ft)98774.511.60I-80LT&C96619877CollapseCollapseBurstBurstBurstTensionLoadStrengthDesignLoadStrengthDesignLoad(psi)(psi)Factor(psi)Factor(kips)	LengthSizeWeight (ft)GradeFinishDepth (ft)Depth (ft)Diameter (ft)98774.511.60I-80LT&C966198773.875CollapseCollapseCollapseBurstBurstBurstTensionTensionLoadStrengthDesignLoadStrengthDesignLoadStrength(psi)(psi)Factor(psi)Factor(kips)

Prepared

Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: September 30,2010 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9661 ft, a mud weight of 12.4 ppg An internal gradient of .121 psi/ft was used for collapse from TD Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.

Well Name NBU 921-25B3AS

API Number 43047512650000 APD No 2951 Field/Unit NATURAL BUTTES

Location: 1/4,1/4 NENW **Sec** 25 **Tw** 9.0S **Rng** 21.0E 645 FNL 1955 FWL

GPS Coord (UTM) 627855 4430010 Surface Owner

Participants

Floyd Bartlett (DOGM), Sheila Wopsock, Clay Einerson, Roger Perry, Laura Gianokas, Lovel Young, Grizz Oleen, (Kerr McGee), Mitch.Batty, John Slaugh, (Timberline Engineering and Land Surveying), Ed Bonner (SITLA), Ben Williams (UDWR).

Regional/Local Setting & Topography

The general area is the Natural Buttes Unit in a major un-named drainage west of the lower portion of the Sand Wash drainage of Uintah, County, approximately 33 air miles and 41.5 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the area is characterized by open flats bordered or dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock.

The NBU 921-25C pad will be an enlargement of the existing pad for the NBU 97 gas well. It will be enlarged in all directions. The site is on the north slope of a moderately gentle ridge. No drainages intersect the site and no diversions are needed. A shallow swale on the west end of the pad will be filled. Four new gas wells will be directionally drilled from this pad. They are the NBU 921-25C2DS, 921-25B3AS, 921-25C3AS and 921-25B3DS. The White River is approximately 3 miles down drainage. The selected site appears to be a good location for constructing a pad, drilling and operating the proposed wells and is the best site in the immediate area. The Ute Tribal boundary fence is about 1/8 mile to the north.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use

Grazing Wildlfe Habitat Existing Well Pad

New Road Miles Well Pad Src Const Material Surface Formation

0 Width 352 Length 425 Onsite UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

10/5/2010 Page 1

Vegetation is a poor desert shrub type, which includes Russian thistle, shadscale, curly mesquite, broom snakeweed, globemallow, greasewood and halogeton..

Antelope, sheep during the winter, rabbits, coyotes, and small mammals, birds and raptors.

Soil Type and Characteristics

Surface soils are a moderately deep sandy loam with some sandstone surface rock.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Paleo Potental Observed? N Cultural Survey Run? Y Cultural Resources? N

Reserve Pit

Site-Specific Factors	Site R	anking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

The proposed reserve pit is 125' x 260' x 12' deep located in a cut on the southeast side of the location. Kerr McGee plans a 30-mil liner with a double felt sub-liner.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 30 Pit Underlayment Required? Y

Other Observations / Comments

Floyd Bartlett 8/25/2010 **Evaluator Date / Time**

10/5/2010 Page 2

10/5/2010

Application for Permit to Drill Statement of Basis

Utah Division of Oil, Gas and Mining

Page 1

APD No	API Well	No				Stat	us	Well Ty	pe	Surf Own	er CBM
2951	43047512	6500	000			SITI	LA (GW		S	No
Operator	KERR-MO	CGE	E O	IL & C	GAS	ONSHORE	E, L.P	Surface	Owner-APD		
Well Name	NBU 921-	-25B	3AS				Į	U nit		NATURA	L BUTTES
Field	NATURA	L B	UTT	ES			r -	Гуре of	Work	DRILL	
Location	NENW :	25	9S	21E	S	645 FNL	1955 FW	L GPS	Coord (UTM)	627871E	4430008N

Geologic Statement of Basis

Kerr McGee proposes to set 2,410' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 450'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 25. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect any usable ground water.

Brad Hill 9/29/2010 **APD Evaluator Date / Time**

Surface Statement of Basis

The general area is the Natural Buttes Unit in a major un-named drainage west of the lower portion of the Sand Wash drainage of Uintah, County, approximately 33 air miles and 41.5 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the area is characterized by open flats bordered or dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock.

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Both the surface and minerals are owned by SITLA. Ed Bonner represented SITLA at the pre-site investigation. Mr. Bonner had no concerns pertaining to this location. SITLA will provide site reclamation standards and a seed mix.

Ben Williams represented the Utah Division of Wildlife Resources. Mr. Williams stated the area is classified as crucial yearlong antelope habitat but recommended no restrictions for this species. No other wildlife will be significantly affected.

Floyd Bartlett
Onsite Evaluator

8/25/2010 **Date / Time**

10/5/2010

Application for Permit to Drill Statement of Basis

Utah Division of Oil, Gas and Mining

Page 2

Category Condition

Pits A synthetic liner with a minimum thickness of 30 mils with a double felt subliner shall be properly installed and

maintained in the reserve pit.

Surface The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 8/17/2010 **API NO. ASSIGNED:** 43047512650000

WELL NAME: NBU 921-25B3AS

PHONE NUMBER: 720 929-6156 **OPERATOR:** KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)

CONTACT: Danielle Piernot

PROPOSED LOCATION: NENW 25 090S 210E **Permit Tech Review:**

> **SURFACE:** 0645 FNL 1955 FWL **Engineering Review:**

> **BOTTOM:** 0720 FNL 1985 FEL Geology Review:

COUNTY: UINTAH

LATITUDE: 40.01249 **LONGITUDE:** -109.50178

UTM SURF EASTINGS: 627871.00 NORTHINGS: 4430008.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: UO 1189 ST PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 3 - State COALBED METHANE: NO

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

 PLAT R649-2-3.

Unit: NATURAL BUTTES Bond: STATE/FEE - 22013542

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Drilling Unit Oil Shale 190-13

Board Cause No: Cause 173-14 Water Permit: Permit #43-8496

Effective Date: 12/2/1999 **RDCC Review:**

Siting: Suspends General Siting **Fee Surface Agreement**

✓ Intent to Commingle R649-3-11. Directional Drill

Commingling Approved

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 5 - Statement of Basis - bhill 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason 25 - Surface Casing - hmacdonald

API Well No: 43047512650000



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 921-25B3AS API Well Number: 43047512650000 Lease Number: UO 1189 ST Surface Owner: STATE

Approval Date: 10/5/2010

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

API Well No: 43047512650000

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well contact Carol Daniels OR
- submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
- Dustin Doucet 801-538-5281 office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas

			7					
	STATE OF UTAH		FORM 9					
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST					
SUND	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
Do not use this form for propo bottom-hole depth, reenter plu DRILL form for such proposals	existing wells below current se APPLICATION FOR PERMIT TO	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES						
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 921-25B3AS						
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	9. API NUMBER: 43047512650000							
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHON Street, Suite 600, Denver, CO, 80217 3779	NE NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0645 FNL 1955 FWL			COUNTY: UINTAH					
QTR/QTR, SECTION, TOWNSH	IP, RANGE, MERIDIAN: 5 Township: 09.0S Range: 21.0E Meridian: 9	S	STATE: UTAH					
11. CHE	CK APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPORT,	OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION						
	☐ ACIDIZE	☐ ALTER CASING	CASING REPAIR					
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME					
12/20/2010	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE					
SUBSEQUENT REPORT	✓ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION					
Date of Work Completion:	OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK					
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION					
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON					
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL					
☐ DRILLING REPORT	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	APD EXTENSION					
Report Date:	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:					
12 DESCRIBE PROPOSED OR CO	OMPLETED OPERATIONS Clearly show all per	tinent details including dates, denths, v	volumes etc					
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests to change the total depth (TD) to include the Blackhawk formation, which is in the Mesaverde group for this well. Please see the attached for additional details. All of the original information remains the same. Please contact the undersigned with any questions and/or comments. Thank you. Date: 12/21/2010 By:								
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst						
SIGNATURE N/A		DATE 12/20/2010						

Well name:

43047512650000 NBU 921-25B3ASrev.

Operator:

Kerr McGee Oil & Gas Onshore L.P.

String type:

Production

Project ID:

43-047-51265-0000

Location:

Uintah County, Utah

Design parameters:

Collapse

Mud weight:

13.000 ppg Design is based on evacuated pipe.

Minimum design factors:

Collapse: Design factor

1.125

Environment: H2S considered?

Surface temperature: Bottom hole temperature:

No 75 °F 221 °F

Temperature gradient: 1.40 °F/100ft Minimum section length: 1,500 ft

Burst:

Design factor

1.00

1.80 (J)

1.80 (J)

1.60 (J)

1.50 (J)

1.50 (B)

Cement top:

1,647 ft > W/12 8 ~C

surf csy.@ 2630'

Burst

Max anticipated surface pressure:

No backup mud specified.

Internal gradient: Calculated BHP

4,749 psi) > 5m BapE Proposad 0.220 psi/ft 7,043 psi

8 Round STC: 8 Round LTC: Buttress:

> Premium: Body yield:

Tension:

Directional well information:

Kick-off point 1950 ft Departure at shoe: 1340 ft Maximum dogleg:

Inclination at shoe:

2 °/100ft 0°

Tension is based on buoyed weight.

Neutral point:

8,618 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	10645	4.5	11.60	HCP-110	LT&C	10429	10645	3.875	929
Run Seq	Collapse Load (psi) 7043	Collapse Strength (psi) 8650	Collapse Design Factor 1.228 —	Burst Load (psi) 7043	Burst Strength (psi) 10690	Burst Design Factor 1.52 —	Tension Load (Kips) 97	Tension Strength (Kips) 279	Tension Design Factor 2.86 J

Approved by the **Utah Division of** Oil, Gas and Mining

Prepared

Dustin K. Doucet

Div of Oil, Gas & Mining by:

Phone: (801) 538-5281

FAX: (801) 359-3940

Date: December 21,2010

Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 10429 ft, a mud weight of 13 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

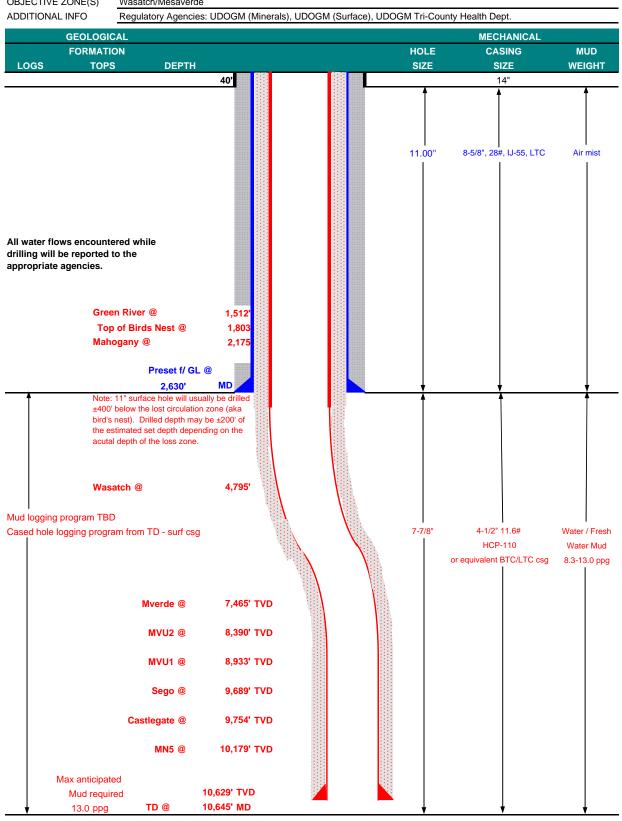
Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a



KERR-McGEE OIL & GAS ONSHORE LP <u>DRILLING PROGRAM</u>

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP December 20, 2010 WELL NAME NBU 921-25B3AS 10,629' TVD 10,645' MD TD COUNTY Uintah FINISHED ELEVATION **FIELD** Natural Buttes STATE Utah 4,932' SURFACE LOCATION NE/4 NW/4 645' FNL 1,955' FWL Sec 25 T 9S R 21E Latitude: 40.012522 Longitude: -109.501846 NAD 27 BTM HOLE LOCATION NW/4 NE/4 720' FNL 1,985' FEL Sec 25 R 21E 40.012315 -109.497069 NAD 27 Latitude: Longitude: OBJECTIVE ZONE(S) Wasatch/Mesaverde





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

		DESIGN FACTORS								
	SIZE	INT	INTERVAL			GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"	(0-40'							
								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2,630'	28.00	IJ-55	LTC	0.70	1.53	4.68
								10,690	8,650	367,000
PRODUCTION	4-1/2"	0	to	10,645'	11.60	HCP-110	BTC	4.56	1.20	3.71

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above.

D.F. = 2.05

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 13.0 ppg)

0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 4,725 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 13.0 ppg) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 7,064 psi

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	110	60%	15.80	1.15
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	160	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
SURFACE		NOTE: If well will circulate water to surf	face, optio	n 2 will be u	tilized	
Option 2 LEAD	2,130'	65/35 Poz + 6% Gel + 10 pps gilsonite	120	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	100	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION LEAD	4,295'	Premium Lite II + 3% KCI + 0.25 pps	320	20%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	6,350'	50/50 Poz/G + 10% salt + 2% gel	1,330	20%	14.30	1.31
		+ 0.1% R-3				

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION

Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: John Huycke / Emile Goodwin
DRILLING SUPERINTENDENT: John Merkel / Lovel Young

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

	STATE OF UTAH	_	FORM 9					
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST					
SUNDF	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
	sals to drill new wells, significantly deepen or gged wells, or to drill horizontal laterals. Us		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-25B3AS					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	9. API NUMBER: 43047512650000							
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHON treet, Suite 600, Denver, CO, 80217 3779	E NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0645 FNL 1955 FWL		COUNTY: UINTAH						
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENW Section: 25	P, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian: S	3	STATE: UTAH					
11. CHE	CK APPROPRIATE BOXES TO INDICATI	E NATURE OF NOTICE, REPORT,	OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION						
	☐ ACIDIZE	ALTER CASING	☐ CASING REPAIR					
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME					
2/7/2011	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE					
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION					
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK					
_	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION					
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON					
	☐ TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL					
☐ DRILLING REPORT	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION					
Report Date:	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Pit Refurb (ACTS)					
12 DESCRIBE PROPOSED OR CO	MPI FTFD OPFRATIONS Clearly show all nert	inent details including dates, denths, v	olumes etc					
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Kerr-McGee Oil & Gas Onshore, LP is requesting to refurb the existing pit on this multi-well pad for completion operations. The refurb pit will be relined per the requirements in the COA of the APD. Upon completion of the wells on this pad, Kerr-McGee is also requesting to utilize this pit as an ACTS staging pit to be utilized for other completion operations in the area. There will be 2-500 bbl temporary frac tanks placed on the location. The trucks will unload water into these tanks before the water is placed into the refurbed pit. The purpose of the frac tanks is to collect any hydro-carbons that may have been associately: with the other completion operations before releasing into the pit. We plan to keep this pit open for 1 year. During this time the surrounding well location completion fluids will be recycled in this pit and utilized for other frac jobs in the surrounding sections.								
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst						
SIGNATURE N/A		DATE 2/3/2011						



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047512650000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

	5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST 6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for propos	RY NOTICES AND REPORTS Of sals to drill new wells, significantly deepen exagged wells, or to drill horizontal laterals. Use	isting wells below current	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-25B3AS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	9. API NUMBER: 43047512650000		
	treet, Suite 600, Denver, CO, 80217 3779	NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0645 FNL 1955 FWL QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENW Section: 25	EP, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian: S		COUNTY: UINTAH STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
MIRU PETE MARTIN RAN 14" 36.7# SCH	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION MPLETED OPERATIONS. Clearly show all pertin BUCKET RIG. DRILLED 20" COI EDULE 10 CONDUCTOR PIPE. CI LOCATION ON FEBUARY 13, 201	NDUCTOR HOLE TO 40'. MT W/28 SX READY MIXA .1 AT 13:00 HRS. Oil	
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst	
SIGNATURE N/A		DATE 2/15/2011	

Do not use this form for propos bottom-hole depth, reenter plu DRILL form for such proposals. 1. TYPE OF WELL Gas Well 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSI 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th St	5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7.UNIT OF CA AGREEMENT NAME: NATURAL BUTTES 8. WELL NAME and NUMBER: NBU 921-25B3AS 9. API NUMBER: 43047512650000 9. FIELD and POOL OF WILDCAT: NATURAL BUTTES COUNTY: UINTAH		
FOOTAGES AT SURFACE: 0645 FNL 1955 FWL QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENW Section: 25	STATE: UTAH OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION	
MIRU CAPSTAR AIF HOLE TO 2690'. RAN LEAD CEMENT W/ CEMENT W/ 225 SX	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION RIG ON FEBRUARY 22, 2011. S 5/8" 28# IJ-55 SURFACE CSC 200 SX CLASS G PREM @ 11.0 K CLASS G PREM LITE @ 15.8 FW/ 157 BBLS WATER. BUMP PLUELD W/ 2 BBLS BACK. FULL REBBLS CEMENT TO SURFACE. W	DRILLED 11" SURFACE G. PUMP 25 BBLS SPACE PPG, 3.83 YD. TAILED UPG, 1.15 YD. DROPPEDIN JG @ 820 PSI; FINE OF TURNS ENTIRE JOE	Accepted by the Itah Division of . Gas and Mining
NAME (PLEASE PRINT) Andy Lytle SIGNATURE N/A	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst DATE 2/24/2011	

SUNDR Do not use this form for proposition bottom-hole depth, reenter plu DRILL form for such proposals. 1. TYPE OF WELL Gas Well	5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7.UNIT OF CA AGREEMENT NAME: NATURAL BUTTES 8. WELL NAME and NUMBER: NBU 921-25B3AS					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	9. API NUMBER: 43047512650000					
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0645 FNL 1955 FWL QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENW Section: 25	COUNTY: UINTAH STATE: UTAH					
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
MIRU CAPSTAR AIF	ACIDIZE CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION MPLETED OPERATIONS. Clearly show all pertires R RIG ON FEBRUARY 22, 2011.	DRILLED 11" SURFACE	· ·			
HOLE TO 2690'. RAN 8 5/8" 28# IJ-55 SURFACE CSG. PUMP 25 BBLS SPACER. LEAD CEMENT W/ 200 SX CLASS G PREM @ 11.0 PPG, 3.83 YD. TAILED CEMENT W/ 225 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YD. DROPPED PLUG & DISPLACED W/ 157 BBLS WATER. BUMP PLUG @ 820 PSI; FINAL LIFT 660 PSI. FLOATS HELD W/ 2 BBLS BACK. FULL RETURNS ENTIRE JOB. 40 BBLS CEMENT TO SURFACE. WORT.						
NAME (PLEASE PRINT) Andy Lytle	720 929-6100 PHONE NUMBER	TITLE Regulatory Analyst				
SIGNATURE N/A		DATE 2/24/2011				

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM						
Operator:	KERR McGEE OIL & GAS ON	ISHORE LP	Operator Account Number:	N 2995		
Address:	P.O. Box 173779		Operator Account Number	IN		
	city DENVER		******			
	state CO	zip 80217	— Phone Number	(720) 929-6100		

Weli 1

NENW	25	98	Rng 21E	County UINTAH
s		<u> </u>	I. I	
	pud Da	te		y Assignment fective Date
2	2/13/201	1	2/0	22/11
	D HRS	5		2/13/2011 2/0

BHL= NWNE

Weil 2

API Number	Well	Name	QQ	Sec	Twp	Rng	County
4304751267	NBU 921-25C2DS		NENW	25	098	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	s	pud Da	te		y Assignment fective Date
\mathcal{L}	99999	2900	2	/13/201	1	2/	23/11
Comments: MIRU SPUI	J PETE MARTIN BUCKE D WELL LOCATION ON	TRIG. WSM		$\mathcal{B}\mathcal{A}$	/ = M	ENU)

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignmen Effective Date		
omments:							

ACTION CODES:

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

RECEIVED FEB 1 6 2011

REGULATORY ANALYST Title

Signature

ANDY LYTLE

Name (Please Print)

2/15/2011 Date

(5/2000)

Sundry Number: 14997 API Well Number: 43047512650000

			EODM 0			
	STATE OF UTAH		FORM 9			
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST			
SUNDF	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
Do not use this form for proposition-hole depth, reenter plu DRILL form for such proposals.	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-25B3AS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	9. API NUMBER: 43047512650000					
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	E NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0645 FNL 1955 FWL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENW Section: 25	(P, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian: S	;	STATE: UTAH			
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
☐ NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME			
Approximate date work will start:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
☐ SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION			
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	□ PLUG BACK			
SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION			
	☐ REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON			
✓ DRILLING REPORT	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
Report Date: 5/9/2011	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
5/9/2011	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:			
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU ROTARY RIG. FINISHED DRILLING FROM 2690' TO 11,208' ON MAY 5, 2011. RAN 4-1/2" 11.6# P-110 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED H&P RIG 298 ON MAY 9, 2011 @ 15:00Accepted by the HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL Utah Division of COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITORS. Gas and Mining FOR RECORD ONLY						
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst				
SIGNATURE N/A		DATE 5/10/2011				

Sundry Number: 24025 API Well Number: 43047512650000

	STATE OF UTAH		FORM 9			
ι	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST			
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 921-25B3AS				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047512650000					
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779 720 929-	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0645 FNL 1955 FWL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 25 Township: 09.0S Range: 21.0E Mer	ridian: S	STATE: UTAH			
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION			
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
SPUD REPORT	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
3/19/2012	WILDOAT WELL DETERMINATION	OTHER	OTHER:			
	WILDCAT WELL DETERMINATION	U OTREK	<u> </u>			
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 03/19/2012 AT 1600 HRS. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT. WITH THE WELL COMPLETION REPORT. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY March 20, 2012						
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUM! 435 781-7024	BER TITLE Regulatory Analyst				
SIGNATURE N/A		DATE 3/20/2012				

Print Form

Spud BLM - Vernal Field Office - Notification Form

Oper	rator <u>KERR-McGEE OIL & GA</u>	🚫 Rig Name/#	# BUCKET RIG
Subr	nitted By ANDY LYTLE	Phone Number	er <u>720.929.6100</u>
	Name/Number NBU 921-25E		
Qtr/0	Qtr NENW Section 25	Township 98	Range <u>21E</u>
Leas	e Serial Number <u>UO 1189ST</u>		
API I	Number <u>4304751265</u>		
=	<u>d Notice</u> – Spud is the initial pelow a casing string.	spudding of t	he well, not drilling
	Date/Time <u>02/10/2011</u>	12:00 HRS AN	M PM
Casir time	ng – Please report time casis. Surface Casing Intermediate Casing Production Casing Liner Other	ing run starts,	not cementing
	Date/Time 03/15/2011	08:00 HRS AN	M PM D
BOPI	Initial BOPE test at surface BOPE test at intermediate 30 day BOPE test Other	casing point	
	Date/Time	AN	M PM
Rem	arks ESTIMATED DATE AND TIME. PLEA	SE CONTACT KENNY GA	ATHINGS AT
435.78	1.7048 OR LOVEL YOUNG AT 435.828.098	36	

	STATE OF UTAH				FORM 9	
ı	DEPARTMENT OF NATURAL RESOUI DIVISION OF OIL, GAS, AND M		3	5.LEASE DESIGN UO 1189 ST	ATION AND SERIAL NUMBER:	
SUNDR	RY NOTICES AND REPORTS	S ON	WELLS	6. IF INDIAN, ALL	OTTEE OR TRIBE NAME:	
	oposals to drill new wells, significantl reenter plugged wells, or to drill horiz n for such proposals.			7.UNIT or CA AG NATURAL BUT	REEMENT NAME: FES	
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 921-25B3AS				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.					000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 720 929-0					OL or WILDCAT: FES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0645 FNL 1955 FWL				COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 25 Township: 09.0S Range: 21.0E Me	eridian:	S	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDIC	ATE N	ATURE OF NOTICE, REPOR	RT, OR OTHER [DATA	
TYPE OF SUBMISSION			TYPE OF ACTION			
NOTICE OF INTENT Approximate date work will start: 1/15/2014	☐ ACIDIZE ☐ CHANGE TO PREVIOUS PLANS ☐ CHANGE WELL STATUS		NATER CASING CHANGE TUBING COMMINGLE PRODUCING FORMATIONS		EPAIR VELL NAME WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN OPERATOR CHANGE		PLUG AND ABANDON	NEW CON	STRUCTION K	
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR		RECLAMATION OF WELL SITE SIDETRACK TO REPAIR WELL VENT OR FLARE		ETE DIFFERENT FORMATION RY ABANDON	
DRILLING REPORT Report Date:	✓ WATER SHUTOFF WILDCAT WELL DETERMINATION		SI TA STATUS EXTENSION	APD EXTE		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The operator requests approval to workover the subject well. Workover operations consist of a water shutoff. Please see the attached procedure. Thank you. Date: January 16, 2014 By:						
NAME (PLEASE PRINT) Matthew P Wold	PHONE NUM 720 929-6993	MBER	TITLE Regulatory Analyst I			
SIGNATURE N/A			DATE 1/15/2014			



NBU 921-25B3AS

SET PLUG ABOVE SEGO/CC ZONE

GREATER NATURAL BUTTES SECTION 27, T9S R21E 43-047-51265 **UINTAH, UT**

PREPARED BY: RONALD TRIGO

ELEVATIONS: 4932' GL 4958' KB Frac Registry TVD: 11017'

TOTAL DEPTH: 11208' **PBTD:** 11152'

SURFACE CASING: 8 5/8", 28# J-55 LT&C @ 2688' 4 1/2", 11.6#, P-110 BTC @ 11173' **PRODUCTION CASING:**

Marker Joint 4874-4887 and 7609-7625'

TUBULAR PROPERTIES:

	BURST	COLLAPSE	DRIFT DIA.	CAPACITIES	
	(psi)	(psi)	(in.)	(bbl/ft)	(gal/ft)
2 3/8" 4.7# J-55	7,700	8,100	1.901"	0.00387	0.1624
tbg					
4 ½" 11.6# I-80	7780	6350	3.875"	0.0155	0.6528
(See above)					
4 ½" 11.6# P-	10691	7580	3.875"	0.0155	0.6528
110					
2 3/8" by 4 ½"				0.0101	0.4227
Annulus					

TOPS: **BOTTOMS:**

1513' Green River Top

1823' Bird's Nest Top

2272' Mahogany Top

7673' Wasatch Bottom 4968' Wasatch Top 7673' Mesaverde Top 11208' Mesaverde Bottom (TD)

EOT @ 9500'

RECEIVED: Jan. 15, 2014



PERFORATIONS

Well	Zn	Formation	Тор	Bottom
43047512650000 : NBU 921-25B3AS	161	DKCYN	7668	7783
43047512650000 : NBU 921-25B3AS	164	MVU	7833.5	7855
43047512650000 : NBU 921-25B3AS	166	MVU	7915.5	7939
43047512650000 : NBU 921-25B3AS	168	MVU	7969.5	7988.5
43047512650000 : NBU 921-25B3AS	173	MVU	8057.5	8084.5
43047512650000 : NBU 921-25B3AS	174	MVU	8089.5	8096.5
43047512650000 : NBU 921-25B3AS	175	MVU	8099.5	8107
43047512650000 : NBU 921-25B3AS	176	MVU	8117	8123.5
43047512650000 : NBU 921-25B3AS	177	MVU	8142.5	8155
43047512650000 : NBU 921-25B3AS	178	MVU	8169	8194
43047512650000 : NBU 921-25B3AS	180	MVU	8245.5	8279.5
43047512650000 : NBU 921-25B3AS	184	MVU	8338.5	8357
43047512650000 : NBU 921-25B3AS	185	MVU	8360	8380
43047512650000 : NBU 921-25B3AS	193	MVU	8620	8665.5
43047512650000 : NBU 921-25B3AS	195	MVU	8693.5	8730.5
43047512650000 : NBU 921-25B3AS	196	MVU	8749.5	8804.5
43047512650000 : NBU 921-25B3AS	202	MVU	8953.5	8985.5
43047512650000 : NBU 921-25B3AS	203	MVU	8993.5	9079.5
43047512650000 : NBU 921-25B3AS	206	MVU	9125	9142.5
43047512650000 : NBU 921-25B3AS	209	MVU	9214	9240
43047512650000 : NBU 921-25B3AS	210	MVU	9241	9245
43047512650000 : NBU 921-25B3AS		MVU	9250.5	9268
43047512650000 : NBU 921-25B3AS	212	MVU	9270	9279
43047512650000 : NBU 921-25B3AS	214	MVU	9322	9375
43047512650000 : NBU 921-25B3AS	215	MVU	9378.5	9384.5
43047512650000 : NBU 921-25B3AS	_	MVU	9386.5	9393.5
43047512650000 : NBU 921-25B3AS	218	MVU	9468.5	9491
43047512650000 : NBU 921-25B3AS	220	MVU	9523.5	9538
43047512650000 : NBU 921-25B3AS	221	MVU	9546	9553.5
43047512650000 : NBU 921-25B3AS		MVU	9644.5	9654
43047512650000 : NBU 921-25B3AS	229	MVU	9674	9681
		BLACKHAWK	10462.0	10467.0
		BLACKHAWK	10486.0	10494.0
		BLACKHAWK	10508.0	10514.0
		BLACKHAWK	10555.0	10561.0
		BLACKHAWK	10607.0	10616.0
		BLACKHAWK	10623.0	10627.0

HISTORY

• 5/10/2012: Completed with a 9 stage frac, on MV/BH

8/1/2012: Slickline –tbg clean
8/31/2012: Slickline –tbg clean
4/2/2013: Slickline –tbg clean



- 4/3/2013: Swab 3 day swab
- 10/14/2013: Slickline found scale on spring. Left plunger out for WO rig.
- 10/17/2013: Workover for hole on tbg EOT @ 9500'.
- **10/23/2013: Swab-** 3 day swab
- 11/1/2013: Swab- 1 day swab
- 11/16/2013: Swab- 1 day swab
- 11/25/2013: Swab- 1 day swab
- 12/16/2013: Swab- 1 day swab
- 12/30/2013: Swab- 1 day swab
- 1/3/2014: Swab- 2 day swab
- **1/10/2014: Swab** 1 day swab

SYMPTOMS

- 4 perfs within 100' from top of Sego/Castlegate zone 9616'
- Chloride count decrease indicating fresher water, typical to the sego formation.
- Well cannot run more than a few days without going down and needing swab

PROCEDURE

- CALL CDC
- ORDER CIBP FOR THE CASING
- MIRU, NDWH, & NUBOP.
 - O Note: Slickline removed spring and plunger
- UN-LAND AND SCAN TUBING. CURRENT EOT +/- 9500'
- GAGE RING THE CASING
- TRIP BACK IN AND SET PLUG AT 9450'. TOH
 - DO NOT SET PLUG ON COLLAR, IF NECESSARY MOVE UP OR DOWN 10'.
- CEMENT 30 FT ON TOP OF PLUG TO 9420' (WE HAVE A PERF AT 9394').
- CLEAN OUT WITH FOAM UNIT. RIH W/ MILL & POBS AND CO TO 9262' (LAST PERF).
- TIH & LAND TUBING WITH X/N NIPPLE AT +/- **8900'** BROACH FULL ID TO EOT. ENSURE THAT BROACH IS 1.90" OD.
- NDBOP, NUWH, & NOTIFY CDC, FOREMAN, & OPERATORS OF RDMO.



CONTACT INFORMATION

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Slade Witbeck	435-828-7271
Kenny Timothy	435-823-8079
	Ronald Trigo Jim Houghton Slade Witbeck

RECEIVED: Jan. 15, 2014

Sundry Number: 51326 API Well Number: 43047512650000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOUR		FORM 9			
ı	5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1189 ST					
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-25B3AS					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	SHORE, L.P.		9. API NUMBER: 43047512650000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	9. FIELD and POOL or WILDCAT: 1NATURAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0645 FNI 1955 FWI						
QTR/QTR, SECTION, TOWNSH						
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
7,pp. Oximuto dato notic um otali.	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION			
4/30/2014	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
DRILLING REPORT Report Date:	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
	✓ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
Report Bate.						
	WILDCAT WELL DETERMINATION	LI OTHER	OTHER:			
THE OPERATOR HA SHUTOFF ON TH	COMPLETED OPERATIONS. Clearly show S COMPLETED THE FOLLOW IE SUBJECT WELL ON 04/30/ OPERATIONS SUMMARY REP	ING WORKOVER/WATER /2014. SEE ATTACHED	Accepted by the Utah Division of Oil, Gas and Mining FORARECARD ONLY			
NAME (PLEASE PRINT)	PHONE NUME					
Doreen Green	435 781-9758	Regulatory Analyst II				
SIGNATURE N/A		DATE 5/20/2014				

RECEIVED: May. 20, 2014

Sundry Number: 51326 API Well Number: 43047512650000

	US ROCKIES REGION									
Operation Summary Report										
Well: NBU 921-2	Well: NBU 921-25B3AS YELLOW Spud Conductor: 2/13/2011 Spud Date: 2/22/2011									
Project: UTAH-UINTAH Site: NE		Site: NBL	NBU 921-25C PAD		Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3					
Event: WELL WO	Event: WELL WORK EXPENSE Start Dat		Start Date	e: 4/29/2014		End Date: 4/30/2014				
Active Datum: RKB @4,958.00usft (above Mean Sea Level)			a	UWI: NE/NW/0/9/S/21/E/25/			25/0/0/26/PM/N/645/W/0/1955/0/0			
Date	S	Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	n
4/29/2014	7:00	- 7:15	0.25	MAINT	48		Р		HSM, JSA	
	7:15	- 11:30	4.25	MAINT	30	A	Р		ROAD RIG FROM NBU 1022-3F4 921-25B3AS, MIRU, 1640# SICP, TO TNK, TBG BLEW DEAD, ND V FLOOR & TBG EQUIP	BLOW TBG & CSG
	11:30	- 17:00	5.50	MAINT	31	I	Р		MIRU SCAN TECH, TOOH & SCA SHOWED 106 YELLOW JTS, 74 I RED JTS, BAD JTS WERE REJE INTERNAL & EXTERNAL PITTING	BLUE JTS & 120 CTED DUE TO
4/30/2014	7:00	- 7:15	0.25	MAINT	48		Р		HSM, JSA	
		- 12:30	5.25	MAINT	34	I	Р		500# SICP, CONTROL WELL W/ 30 BBLS T-MAC, MIRU CUTTERS WIRELINE, RIH W/ GAUGE RING TO 9470', POOH W/ GAUGE RING, RIH W/ CIBP, COLLAR @ 9445' SET CIBP @ 9455', POOH, DUMP BAIL 30' OF CEMENT ON CIBP W/ 3 RUNS, RD CUTTERS	
	12:30	- 16:30	4.00	MAINT	31	I	Р		M/U XN, TIH W/ 2-3/8" TBG, BROACH TBG TO XN W/ 1.910 BROACH, LAND TBG ON HANGER W/ 280 JTS	
	16:30	- 17:30	1.00	MAINT	30	С	Р		ND BOP'S, NU WH, SWI, SDFN	
									KB HANGER 248 JTS 2-3/8" L-80 TBG 6' PUP JNT 2-3/8" L-80 32 JTS 2-3/8" J-55 TBG XN EOT @ TWLTR 100 BBLS	26' .83' 7853.46' 6.17' 1013.01' 1.05' 8900.52'

5/20/2014 10:21:02AM 1